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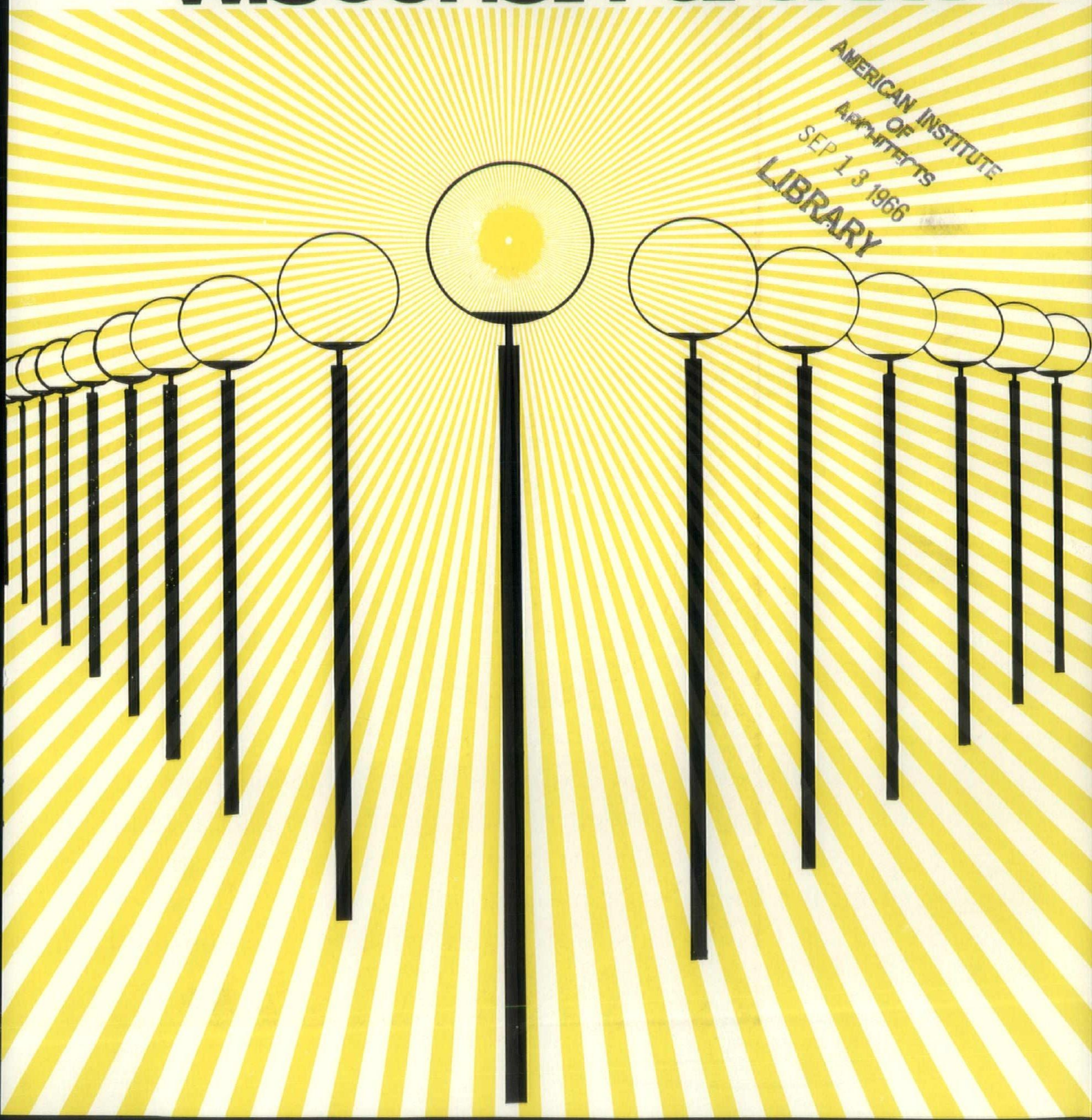

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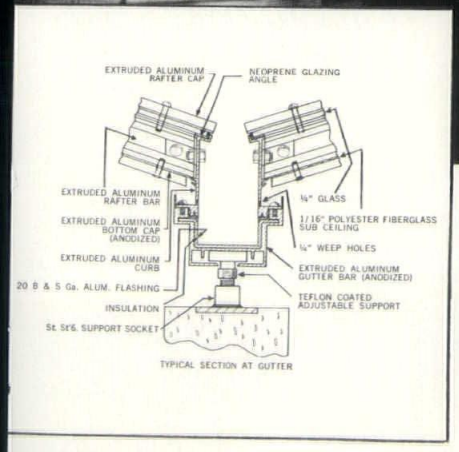

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Mr. Randell made this statement in his speech, "Why I Would Build An All-Electric Office Building," given at the annual convention of the National Association of Building Owners and Managers, of which he is past president.

Mr. Randell points out that "the advantages and benefits accruing to the owner, manager and tenants of an all-electric building are numerous and substantial." He discusses some of these benefits: cleanliness, more rentable area, better light, use of light for heating, efficient temperature and humidity control. And he points out how these benefits not only give the building a competitive advantage now but will prolong the economic life of the building. He believes that experience to date indicates that the operating costs of the all-electric building are lower than in a conventional building and cites figures to support his contention.

Because Mr. Randell is an acknowledged expert in his field, and has no connection with any phase of the electrical industry,

we believe you will want to read his speech in full before you plan your next office building. For a free copy, write:

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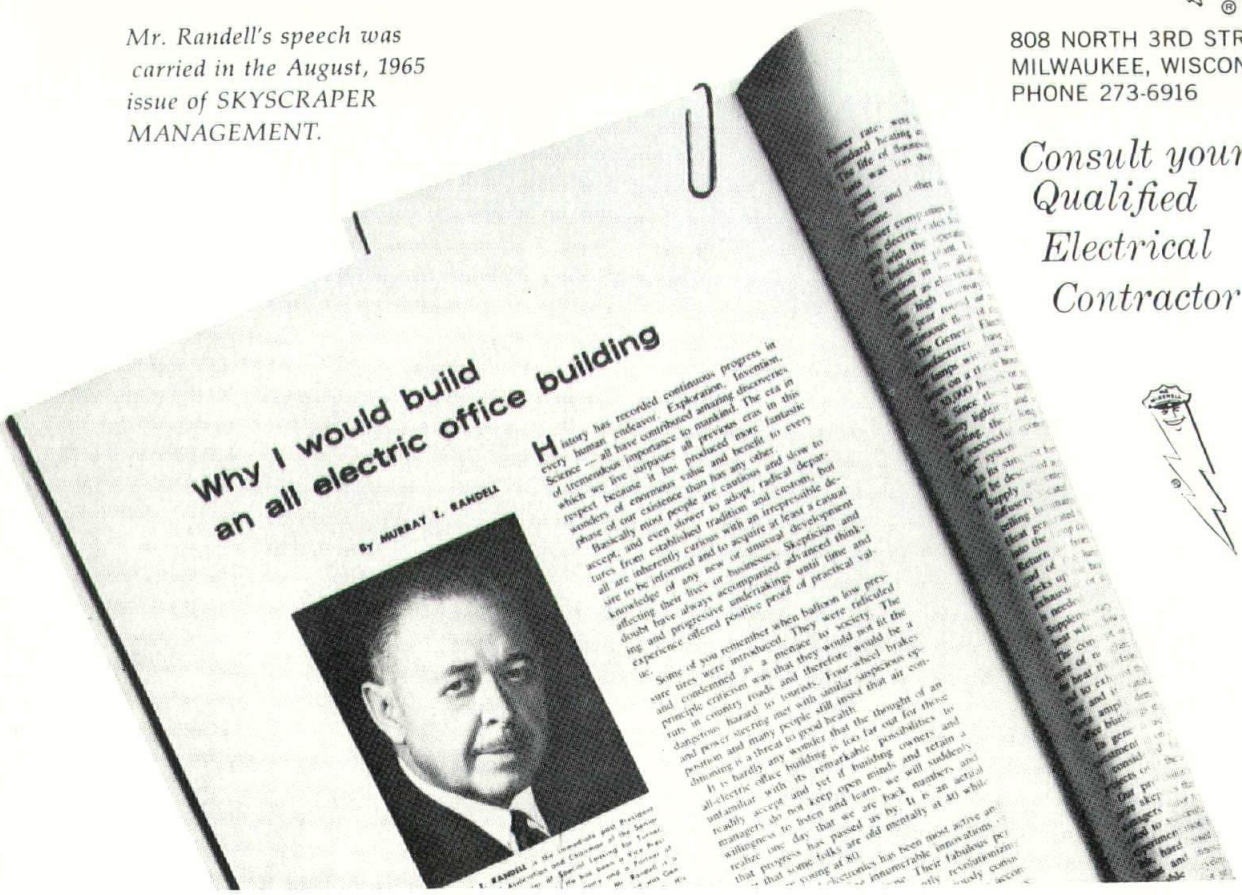
Mr. Randell's speech was carried in the August, 1965 issue of SKYSCRAPER MANAGEMENT.


Why I would build an all electric office building

By MURRAY L. RANDELL

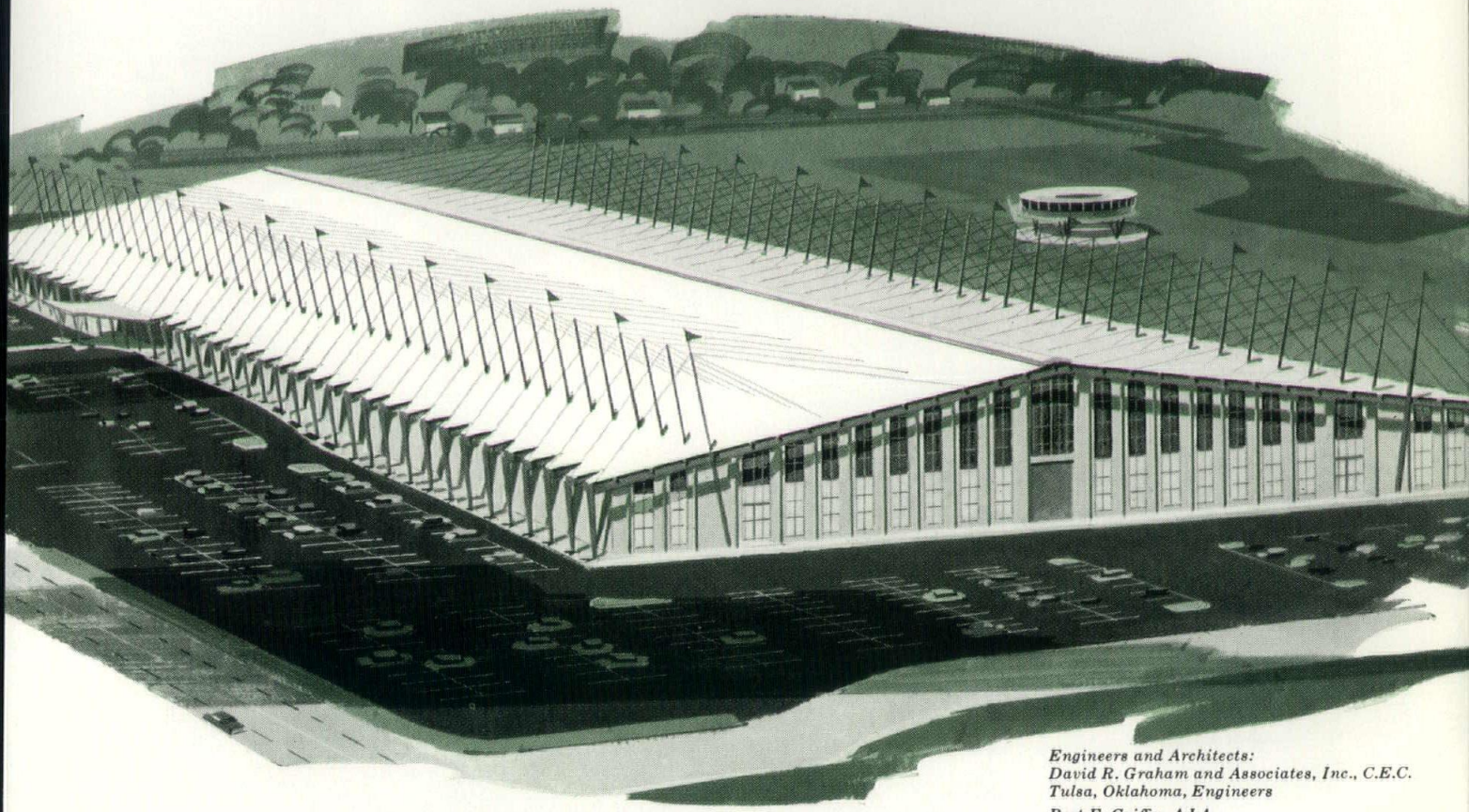
History has recorded continuous progress in every human endeavor. Exploration, Invention, Science — all have contributed amazing discoveries of tremendous importance to mankind. The era in which we live surpasses all previous eras in this respect because it has produced more fantastic wonders of our existence than has any other phase of our existence value and benefit to every

Basically most people are cautious and slow to accept, and even slower to adopt, radical departures from established traditions and customs, but all are inherently curious with an irrepressible desire to be informed and to acquire at least a casual knowledge of any new or unusual development affecting their lives or businesses. Skepticism and doubt have always accompanied advanced thinking and progressive undertakings until time and experience offered positive proof of practical value.

Some of you remember when bathtub low pressure tires were introduced. They were ridiculed and condemned as a menace to society. The principle criticism was that they would not fit the ruts in country roads and therefore would be a dangerous hazard to tourists. Four-wheel brakes and power steering met with similar suspicious opposition and many people still insist that air conditioning is a threat to good health.

It is hardly any wonder that the thought of an all-electric office building is too far out for those unfamiliar with its remarkable possibilities. Yet readily accept and yet if building owners and managers do not keep open minds and retain a willingness to listen and learn, we will suddenly realize one day that we are back numbers and that progress has passed us by. It is an actual fact that some folks are old mentally at 40 while

They go to great lengths in Tulsa to house expositions



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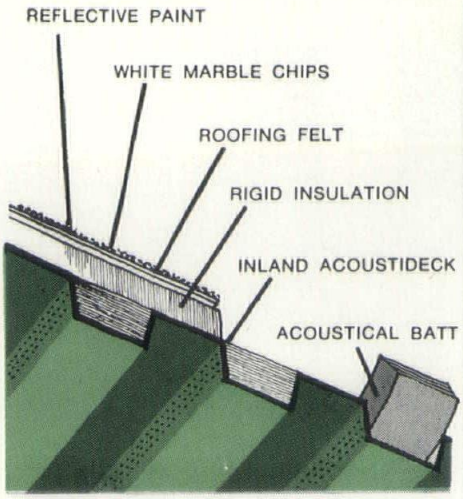

Excessive noise in the Tulsa Exposition Center is entrapped in fiber batts through perforations in the vertical webs of the Acoustideck panels. Insulation over the deck is topped with asphalt-impregnated felt and then a layer of white marble chips. This is coated with a highly reflective white paint.

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wisconsin architect

Volume 37, No. 9 september/1966

Wisconsin Architect is the official publication of the Wisconsin Chapter of the American Institute of Architects, published by the Wisconsin Architect, Inc., Ello Brink, Editor; David Radbil, Advertising Manager; John Reiss, Art Director. Subscription Rate: $5 per year. Individual copy 50c.
Address all matters pertaining to Editorial or Advertising to WISCONSIN ARCHITECT INC., P.O. Box 1285 Milwaukee, Wis. 53201, Phone 464-4523

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notes of the month

Robert D. Cooper, a Wisconsin resident attending the Carnegie Institute of Technology department of architecture (Pittsburgh, Pa.), is recipient of a scholarship awarded for the 1966-67 academic year by The American Institute of Architects. He received the $500 Langley Scholarship from the Edward Langley Fund which is administered by the Institute.

Industrial Commission fees to increase on September 1, 1966. The new fee schedule will raise the Commission's charge to 25¢ per 1,000 cubic feet on general buildings, and to 15¢ per 1,000 cubic feet on heating and ventilating plans. The current rates are 20¢ and 10¢, respectively.

Paintings and drawings by Leon Travanty will be shown at the Bergstrom Museum and Art Center in Neenah from September 21 through October 30, 1966. Reception will be held September 25, 3-5 p.m.

The American Institute of Architects will conduct a national awards program to bring public recognition and honor to architects, engineers and owners responsible for development of building projects which incorporate effective, economical dual-use fallout shelter and demonstrate architectural excellence.

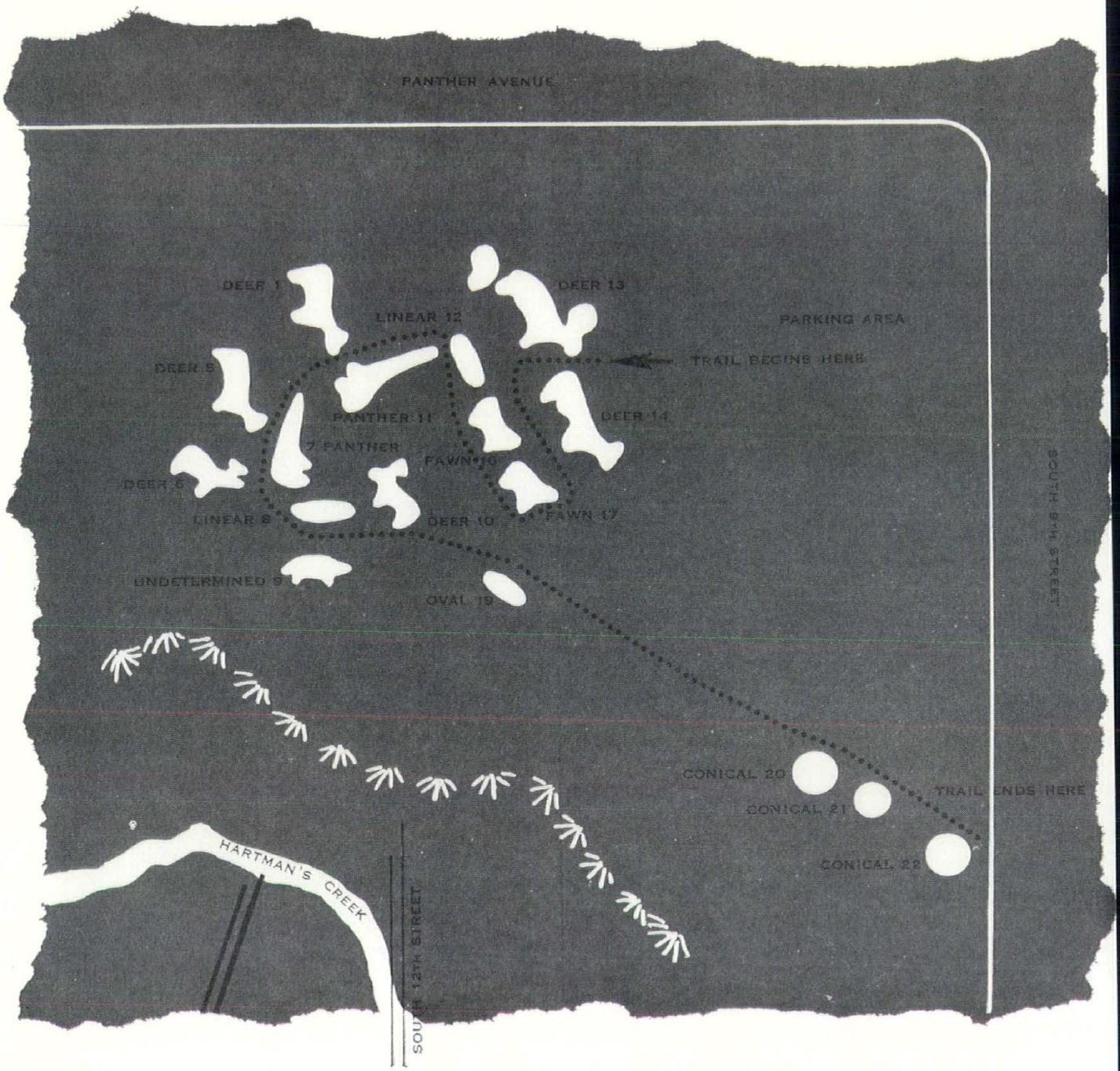
Authorized by the Department of Defense, the program will be limited to buildings designed by a team of registered architects and engineers, with construction substantially completed before October 1, 1966.

All types of buildings will be considered for awards, judged in one of nine categories: educational buildings; hospital and health facilities; industrial buildings; military construction; office buildings; other commercial buildings; public and institutional buildings, religious buildings and residential buildings.

Award certificates will be presented to the building owner and the architects and engineers involved in design of the project. In addition, a plaque suitable for mounting on the building will be awarded.

Dual-use shelter is defined as any space within a building designed to serve normal and essential peacetime needs, and also providing emergency protection against radiation due to radio-active fallout.

Registration must be completed before October 1, and entries are due not later than November 1, 1966. Registration forms and detailed information about the awards program are available from A. Stanley McGaughan, FAIA, professional adviser, Awards Program — Buildings With Fallout Shelters, 1314 New Hampshire Avenue N.W., Washington, D. C. 20036.



Sheboygan Indian Mounds Park

"Remove not the Ancient Landmark" (Proverbs 22:28)

June 25th of this year was a proud day for the more than 150 members of Sheboygan's nine garden clubs who cooperated enthusiastically to "save the mounds," a 15-acres site south of Sheboygan formerly known as the Kletzien property.

Sheboygan Indian Mound Park, bounded on S. 9th Street and Panther Avenue, contains 16 effigy mounds in the shape of deer, panther, turtles and other formations described by Robert E. Ritzenthaler, Curator of Anthropology at the Milwaukee Public Museum, in a publication "The Effigy Mound Builders in Wisconsin" as some of the most fascinating Indian remains of prehistoric times.

Unique to the world, the mounds are concentrated in the southern half of Wisconsin, although they spill over into the adjoining states of Iowa, Minnesota and Illinois. Often unrecognized as man-made, many have been destroyed by the plow and excavator. There is no doubt, according to Dr. Ritzenthaler, that these mounds were constructed for the burial of the dead. Excavation has revealed that one or several bodies were interred at various levels, either on the mound floor, above it, or in a pit beneath it. In the bird and animal mounds the placement of the burials was in the head or heart region; in the round mounds they occur at the center; in the linears they are found along the central axis.

Besides their burial customs very little is known

about these Indians who roamed the Wilds of Sheboygan more than 1200 years ago.

The practice of these Effigy Mound Builders of burying very few objects with their dead made it necessary for archeologists and anthropologists alike to excavate a great number of mounds in order to learn something about their culture and customs.

According to some of the artifacts found, it is assumed that these people depended largely on hunting, fishing and the gathering of wild foods. There is only speculation prevailing as to how these mounds were constructed, and why they were built to represent animals.

Dr. Ritzenthaler writes: "Some of the shapes leave no doubt as to what the Indian was trying to represent. The straight-winged and flying birds are obvious. The so-called panther, with its long, sometimes upcurving tail, is probably correctly named. The bear and lizard, too, are readily recognizable. On the other hand, the form referred to in the literature as 'turtle' is a far cry from the actual shape of a turtle. Intermixed with bird and animal shapes are often found dome-shaped and 'cigar-shaped' mounds, apparently not intended to represent any living form. One might ponder the significance of the fact that the best view of them is from above. Indeed, the few good photographs that have been taken are aerial ones, for it is impossible to do them justice from the ground."

According to Dr. Ritzenthaler "one of the most spectacular examples of effigy mounds is the huge bird on the Mendota Hospital grounds near Madison; it is six feet high with a wingspread of 624 feet."

The Sheboygan Indian Mounds might have shared the fate of one singular man-shaped mound near Baraboo. Construction of a road cut off the lower portion of the legs of this effigy mound, the only one extant in this shape.

The preservation of the Sheboygan Effigy Mounds was deftly undertaken by members of the Sheboygan Juniper Garden Club in 1956. The battle of "Women versus Bulldozer," as Mrs. Clarence Weber, past president of Sheboygan Indian Mounds Holding Association, called it, began when the four block area was destined to be subdivided and threatened to be lost forever.

The late Mrs. Elda Gerlat and Mrs. Carl Rupple brought up to love the Indian Mounds, were startled to find a surveyor tear through the area in 1958 and sent out an SOS for help. The response was immediate and effective. Members of eight garden clubs rallied to their cause and the Indian Mounds Association was formed to spearhead a fund-drive for $15,000 to purchase the property which had already been cleared in part for a subdivision.

A number of interested and influential citizens joined the nine garden club members in their crusade to raise $15,320 within 6 weeks. Activities were organized, tours of the mounds in the blustery month of March were held by the ladies who appeared in babushkas, ski clothes and boots, Indian ceremonial dances in full regalia were held, lectures given and every possibility was exhausted to raise the money within that short a period of time. Boy Scouts came in packs and con-

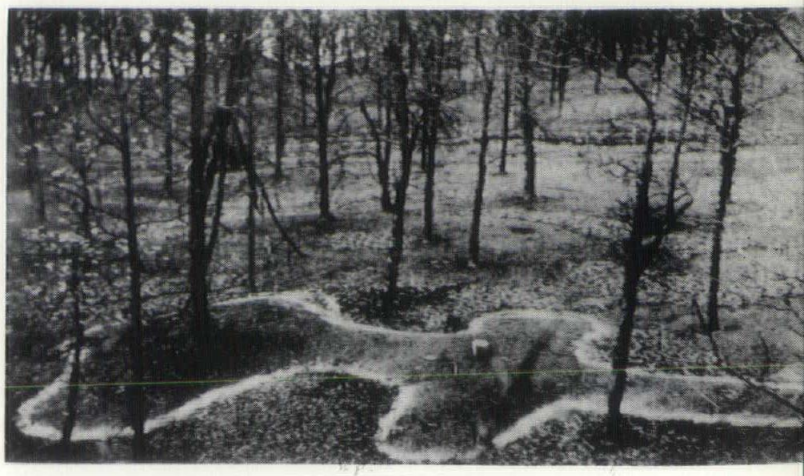
tributed their nickels and dimes to swell the daily total of money collected. Auctions were organized and merchants contributed anything from clothes pins to stoves, tools and motors. The garden club members conducted garden walks at their homes and contributed gifts to the Holding Association in lieu of birthday and anniversary gifts. The *Sheboygan Press* ran daily announcements of contributions and contributors. The "Save the Mounds" crusade turned into a truly community spirited project.

Residents of other Wisconsin communities joined and contributed funds.

The plot was purchased and later in 1960 turned over to the Common Council to be preserved in its natural state as a park.

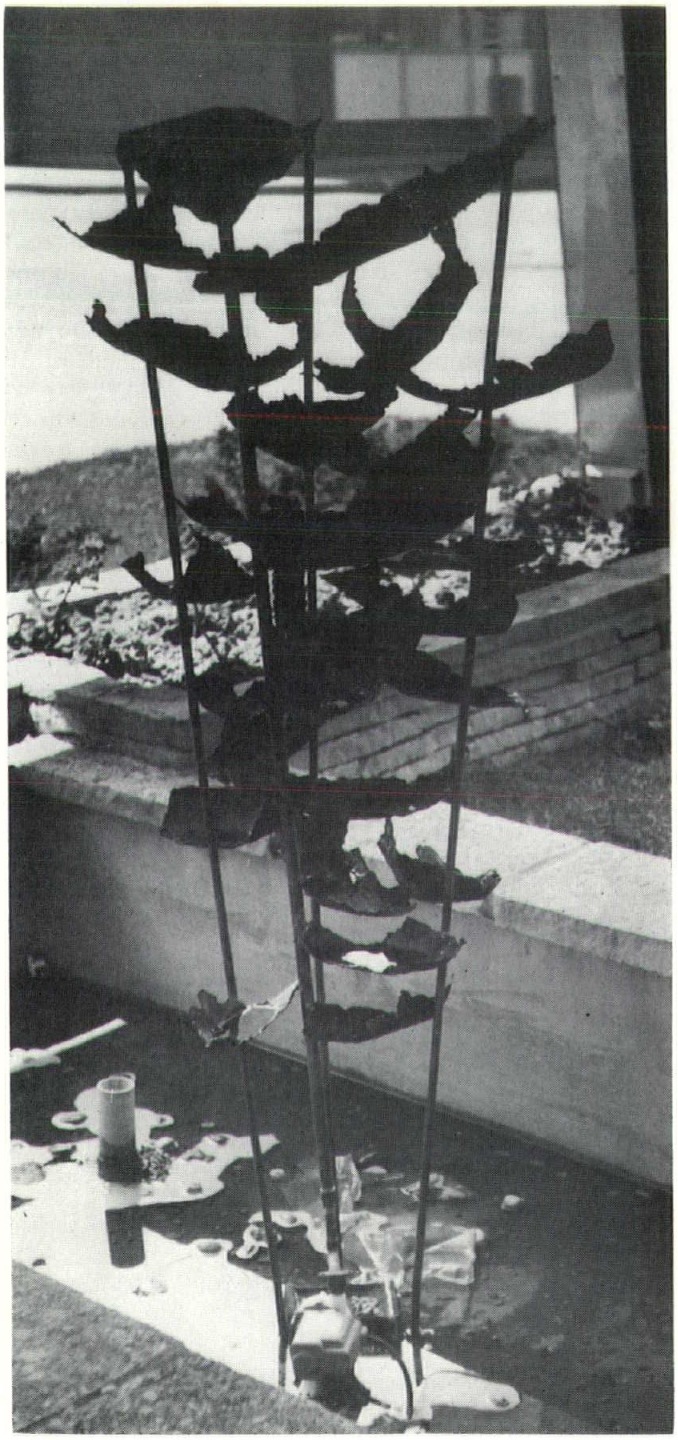
Now that the mounds had been preserved, efforts were made to restore them and open the park to the public. Mrs. John M. Kohler, special projects chairman of Town and Country Garden Club, spiritedly headed this portion of the development. Funds were allocated by the Common Council for clearing and seeding of the mounds according to the original plots; a trail was plotted and signs posted. On June 25, 1966, Sheboygan dedicated its new park.

The real significance of the successful crusade to save the mounds seems to be the fact that Sheboygan Indian Mounds Park stands as Mrs. Weber put it: "A symbol of the truth that women as they organize to protect and preserve our heritage can create a power and strength that can halt the power of the bulldozer which too often in the past has destroyed as well as built."



Chamber of Commerce Office Building

Sauter-Seaborne, Architects Ltd., Appleton, Wisconsin



Consultants: Davis & Watson, Structural Engineers
Walter R. Ratai, Inc., Heating, Ventilating, Air Conditioning Engineers
Armbruster Engineering, Electrical Engineer

Contractors: The Hoffman Company, Inc., General
R. Wenzel, Heating & Plumbing Contractor
Superior Electrical Co., Electrical Contractor

Artist: Fountain — Robert George Sauter

Five major considerations had to be observed by Sauter-Seaborne, Architects, of Appleton, in designing the building that was to house the Chamber of Commerce organization.

The building was to reflect the philosophy of a progressive leader in community affairs; it was intended to revitalize the downtown area by proposing a pedestrian and customer oriented business community; encourage new commerce and industry to the area, and landscaping was to be introduced to the downtown business district.

The site for this building is a corner lot in the heart of the central business district. Because of high land cost, complete utilization of the site was necessary.

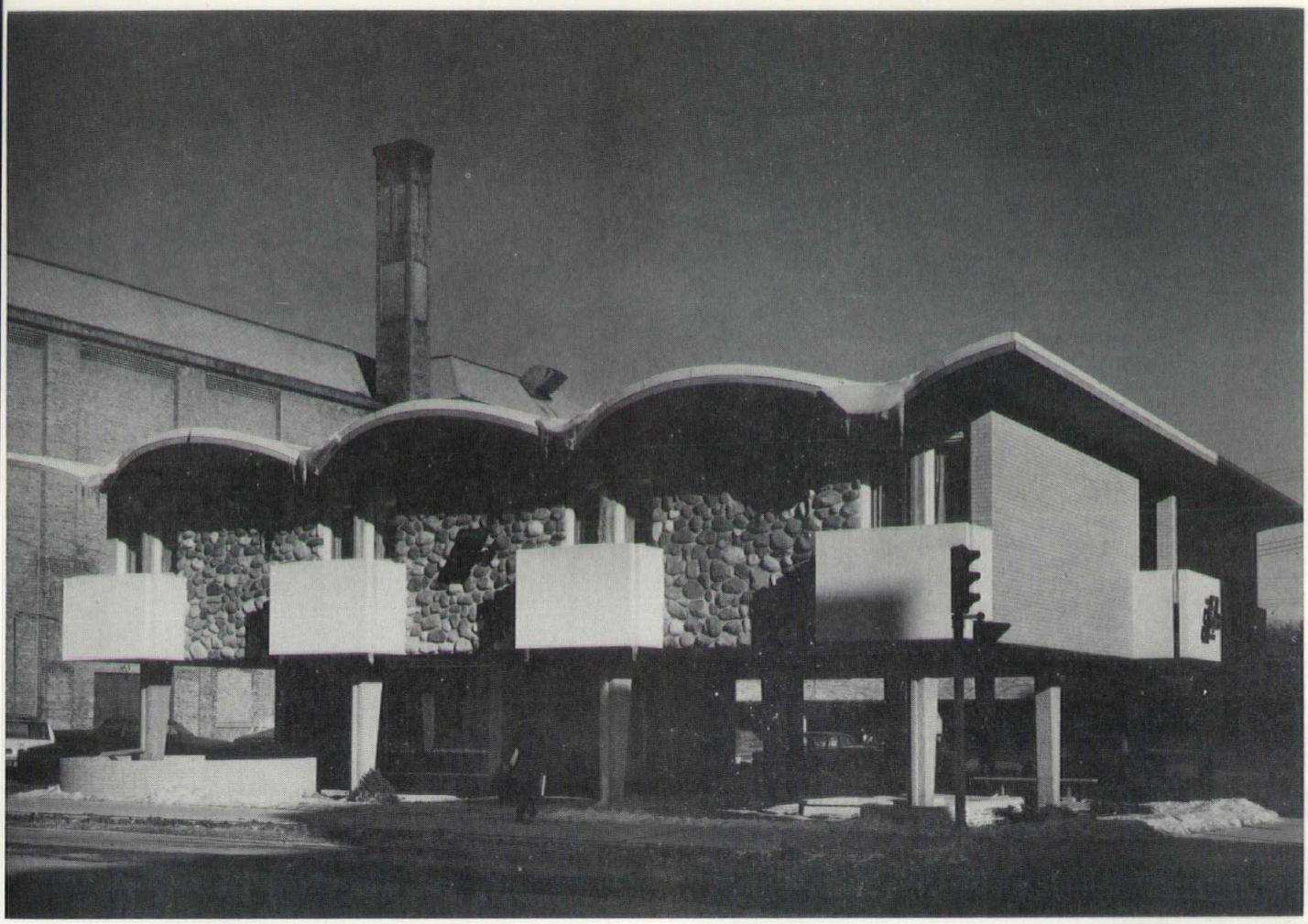
The architects raised the office floor above the street grade, keeping the bulk of the property free. One-way streets were taken into consideration and utilized for intrasite circulation. Rental of two-thirds of the parking spaces to an adjacent hotel provides additional revenue for the owner. The lower section of the building is densely landscaped.

Raising the building gives stature to this small office building which is no longer dwarfed by its adjacent, taller and older neighbors. Concentrated plantings evoke the feeling of a miniature park possible only through minimum use of high cost property.

The architects developed the plan around a central entrance core, with elevator and stair in the park area. The main floor actually grows out of the immediate supervisual capacity of the center office which houses the manager's quarters. From his vantage point, he can meet and greet people, and can also survey operations in the entire building. Offices, meeting rooms, reception area, the president's and assistants' offices are located in the "squared" circle.

Concrete vaults provide for flexibility and allow visual freedom. High level lighting has been used in all work areas. Meeting-lecture rooms are divisible and kept flexible in size.

A reinforced concrete structural system with sandblasted exposed columns and a sandwiched second story floor was chosen by the architects. Air conditioning and heating is supplied through an "air floor," and regulated resistance strip-heaters in the baseboards are controlled by thermostats in each space. Interior partitions are metal stud to which either drywall or wood paneling was applied. The exterior walls are of lightweight block-backup with field stone, or brick exterior. The roofing is a single membrane applied over rigid insulation.



The Evolution of a Bandshell

In the late 19th century, Sheboygan pioneers provided their community with a charming bandstand, reminiscent of the many similar structures to be found in Europe at that time. The city itself erected an ornate water fountain, seen in the sketch to the right of the bandshell. The cast-iron fountain shot water two stories into the air, prompting the name Fountain Park.

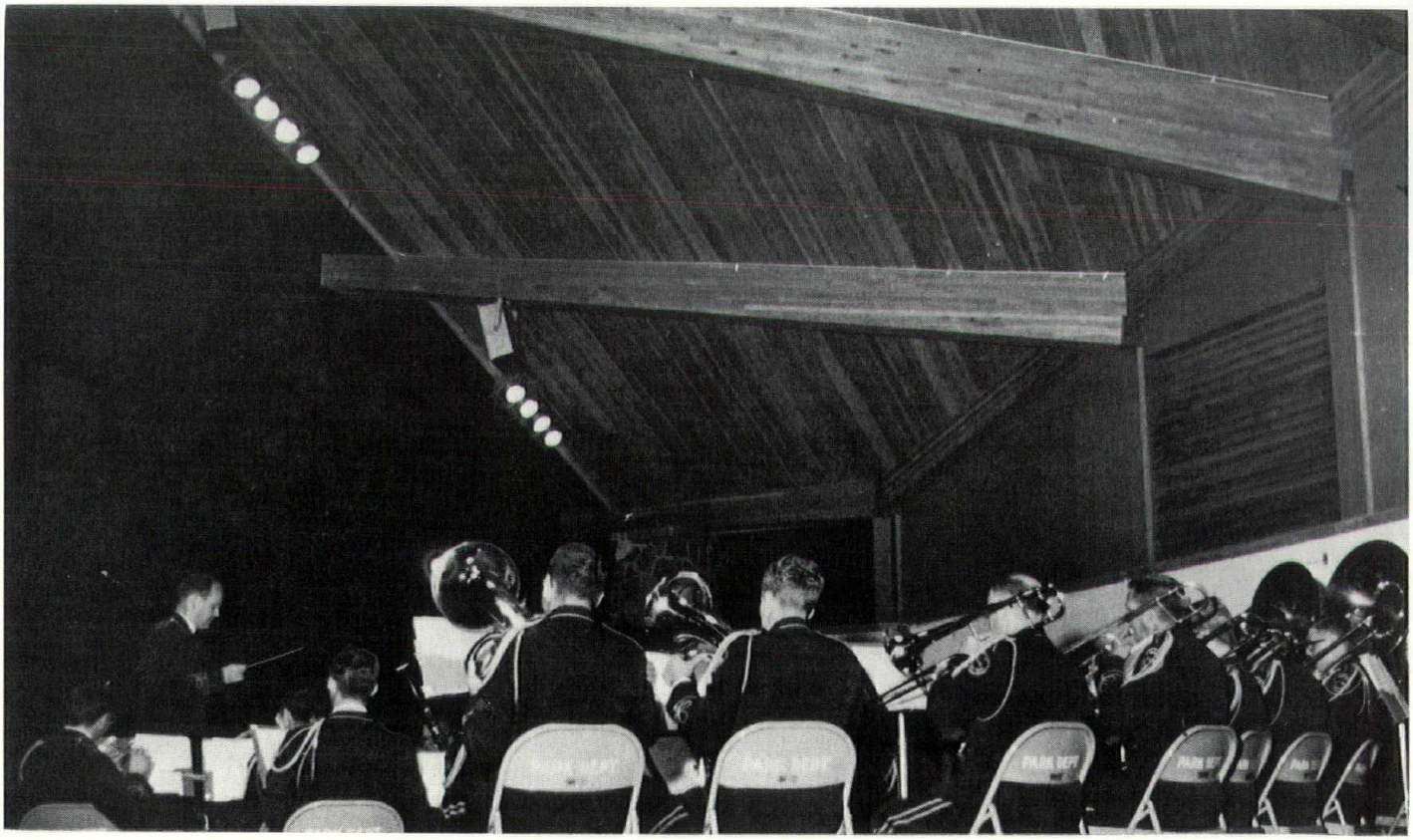
As has happened in so many communities, the original fountain and bandstand were removed in 1910 to make room for another bandstand with restrooms beneath it, that was located in the center of the park. From its upper platform Sheboygan residents enjoyed through the years hundreds of open air concerts by local bands.

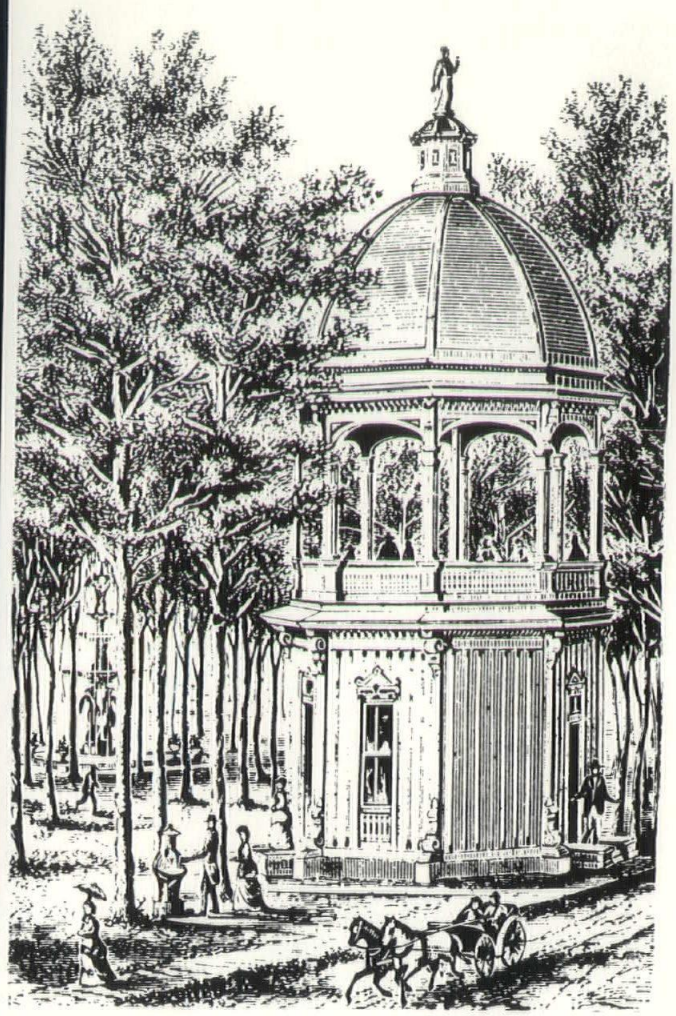
During the last few years, however, concerts were played from a temporary platform east of the stand.

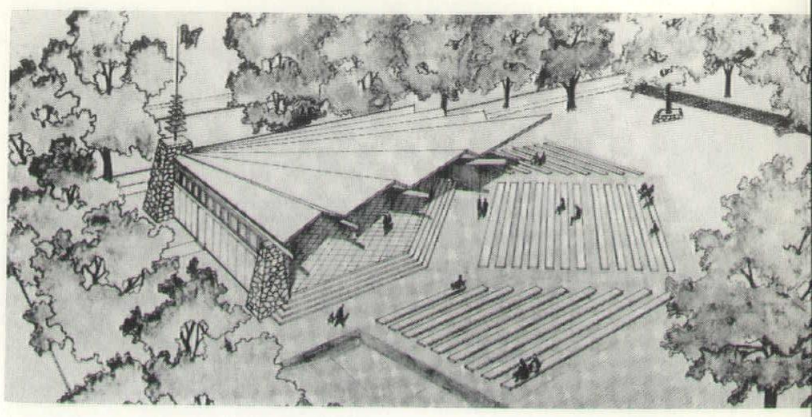
All of this has changed. Sheboygan has its new bandshell, designed by Lawrence E. Bray and Associates, architects of Sheboygan. The change from a bandstand to a bandshell was based on acoustical considerations which in turn influenced the design.

The bandshell was designed to occupy the southeast corner of Fountain Park. An existing high bank was removed and the new structure placed at sidewalk level with surplus earth arranged so as to form a small amphitheater.

Architect Bray explained that he had consulted with top acoustical experts and that various models were erected to test and prove suggested theories in order to come up with as perfect an acoustical design as possible. The final design, Sheboyganites observe, is in harmony with its surroundings and with today's architectural concepts.







The bandshell can accommodate approximately 70 musicians fronting on an amphitheater that will permit some 5,000 spectators.

Surveys by Sheboygan's musical groups indicated, as the *Sheboygan Press* reported, that the audiences of their community preferred attending evening concerts in the midtown Fountain Park rather than those staged in another outdoor location. They further found that residential parks drew few, if any, adults . . . but brought out scores of children. They also reported that the new bandshell was right in the spirit of the new Downtown Parade of Progress theme Sheboygan has adopted.

In July of 1963 bids for the new bandshell were opened and the reality of the new bandshell seemed to become more distant. The lowest bid was almost twice the amount given the project in 1962 and it was three times the total receipts of the bandshell fund which amounted to $22,284.52.

Rodney Gibson, chairman of the Bandshell Steering Committee, stated at that time: "I'm sure we knew we don't have enough money to build the bandshell now, but I am confident that it will be built."

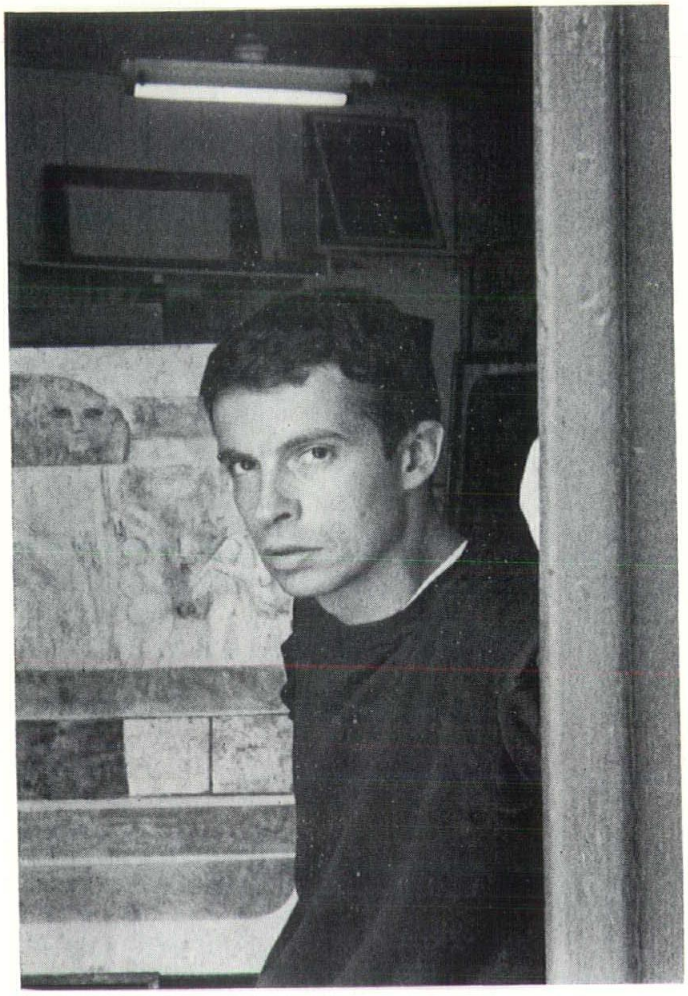
Architect Bray set about revising certain features of the bandshell and suggesting that the amount needed could be reduced if the City would provide restrooms and do some of the excavating and grading work needed.

Negotiations started, the City agreed to appropriate $20,500 for the restroom facilities and landscaping and on October 25, 1965, ground was broken in the presence of Mayor Joseph R. Browne and A. Matt. Werner, board chairman of the Press Publishing Co. and fund raising chairman of the Fountain Park project.

Also present were representatives of the bandshell committee, aldermen and other city officials. After three years of planning and replanning, the Sheboygan Bandshell was dedicated in August of this year, when the City of Sheboygan acquired ownership after its completion.

travanty

By Margaret Fish



Milwaukee artist Leon Travanty is a conservor of the city as well as painter of it. He has been a leader in the fight to save architectural landmarks and natural beauties of the city. He has exhibited nationally and locally and won important prizes. He graduated in 1959 from the Layton School of Art, where he was a full scholarship student, and won the coveted Booth Scholarship at Cranbrook Academy of Art where he took his MFA degree.. He teaches at the UW-M and designs handsome publications for the fine arts department there. In 1965, he was commissioned to do a series of paintings for the Ansul Co., of Marinette, and the brilliant results were reproduced in color in the firm's 50th anniversary report.

Leon Travanty considers himself a city man, and so the *city* is most often the subject matter of his paintings. The content of his work is his intuition about the city as a force in the lives of people. His manner is broodingly reflective in considering the communal habitations of man, from the glory and grandeur of ancient citadels to midwestern Milwaukee, the product of a still raw and unhomogenous though powerful and idealistic nation. The visual statements he makes are rich in surface but austere in structure, a reflection of his own psychology. Forty of his paintings, all done since 1963, will be shown along with a small selection of prints and drawings at the Bergstrom Museum, Neenah, September 25 through October.

The Bergstrom already owns one of his paintings, "Theater Lights," presented by Miss Myra Peache, art collector and Milwaukee theatrical and musical impressario.

During the summer of 1964, Travanty traveled in Europe. This sojourn abroad, where the aura and quality of long-lived-in cities and ancient remains were his primary interest, had a lightening effect on his color and a loosening one on his technique. Historical perspective relaxed his imagination and hand.

In "Carousel" and "Third Ward," for instances, the designs are drawn and then painted in colors that are glowing and warm though somber, this achieved by exquisite glazing. The human figures are shadowy, nevertheless, their psychology is defined in the dark amid which they play or just sit, their shapes illumined by light that floods here and ebbs there, yet barely discloses them.

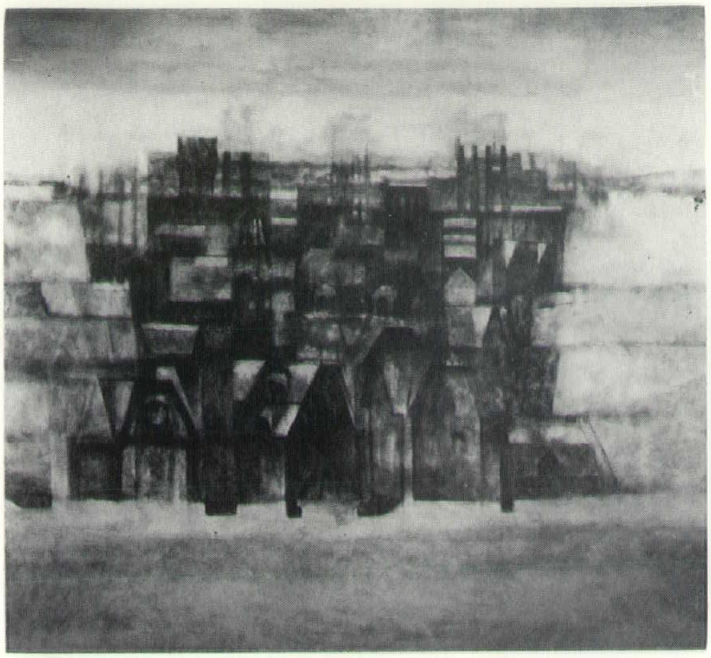
"Candy Store" is a transitional painting. The colors are cool and the painterly qualities have become more important than line.

"Venice," done in 1965, is his last 'drawing-painting' and his first in the versatile, fast drying, new acrylic medium. (The earlier paintings are in oils with the under-drawings in pencil and charcoal.) The lines of San Marco and of a multitude of surrounding architectural treasures — all of Venice seems to be crowding in — are vigorously defined. The hues are gray-ed and blue-ed, quite different from the warm earth colors which prevail in preceding works.

Travanty found himself "very excited" by the ideas of valor and impregnability embodied in the ancient citadels which he saw cresting hills during his jaunts through Greece and Italy. He expressed his exhilaration in "Rising," the oil and gold-leaf painting which won a purchase award in the Marine Bank's 1965 Wisconsin Renaissance competition. But a related oil, this with silver-leaf, entitled "The Citadel," will be in the Bergstrom show. It is equally rich in textures, and in connotations suggested by Greek and Roman architectural elements and symbols made into an eloquent composite.

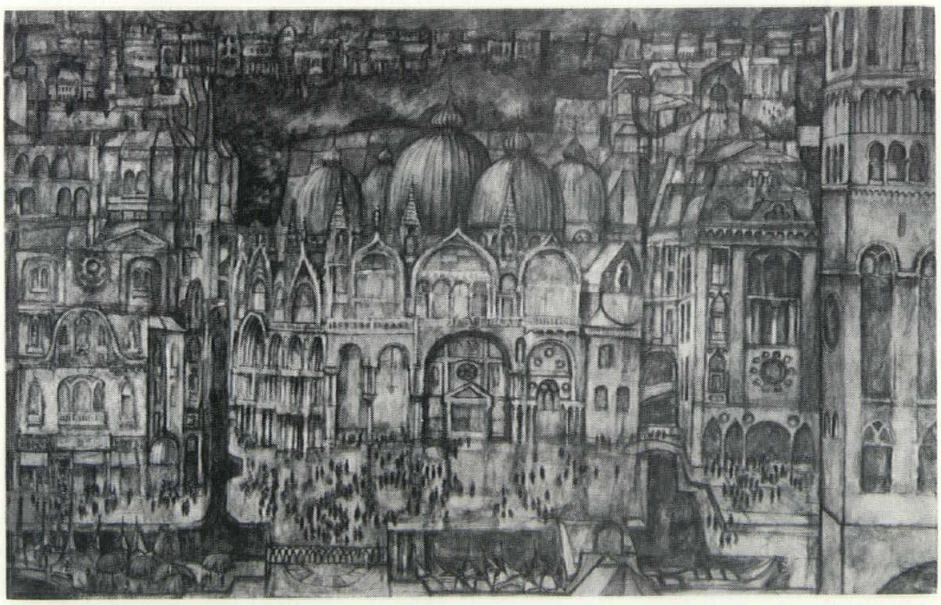
When the artist chooses to deal importantly with the human figure, he is masterful in his plastic handling, as may be seen in an earlier painting of two acrobats which will be included in the Neenah event. Even when the human form is absent from his paintings, humanity is there by implication.

In his very latest acrylic works, Travanty is becoming more formal, that is, abstract, and more painterly, working for immediate and more spontaneous effects on his surfaces. Two of these, which he was completing in his near east side Milwaukee studio during our interview, are "Design for Italian Stamp" and "Pieta 66," the latter the first work of political inspiration he has ever done. They are less directly descriptive than his early expressions but in them he remains *the humanist.*

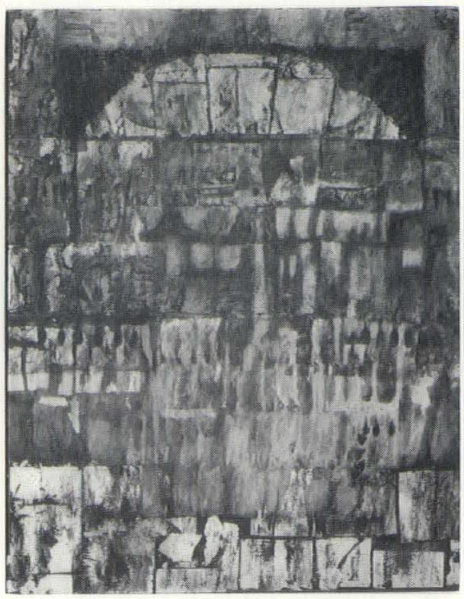


Winter City, 48" x 48", oil on masonite, 1963. Collection of Mr. and Mrs. D. Mandel.

Tumblers, oil on masonite 48" x 36", 1963/64.



Venice, 4' x 6', acrylic on masonite, 1964.

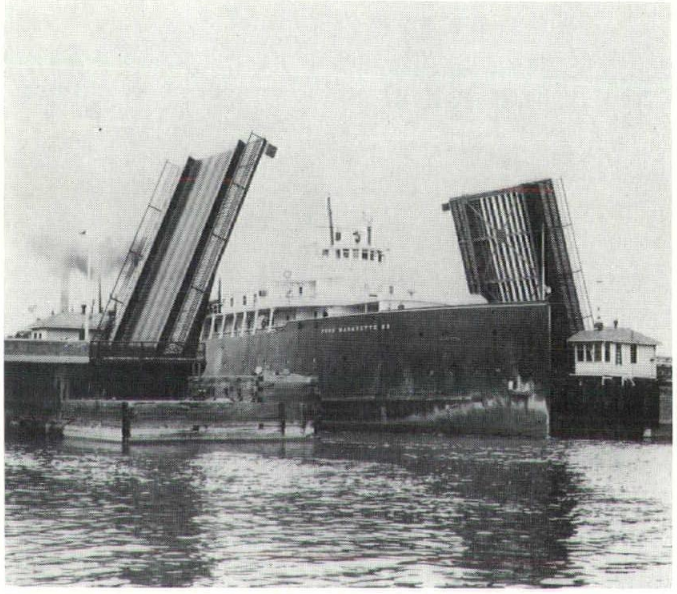


Citadel No. 2, 36" x 48", 1965, oil and silver leaf on masonite.

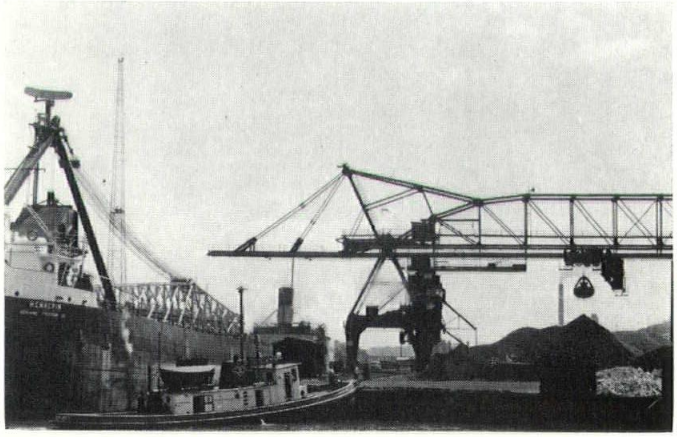
Sketches from Mr. Travanty's European sketchbook.

Waterfront Renewal Proposal for Manitowoc

The north breakwater at Manitowoc. Note the abandoned piling.



This bridge in Manitowoc's central business area must open several times daily for ferries.



A coal dock on the south bank of the Manitowoc River.

Water pollution was singled out as the most important cause of waterfront blight in many of our cities in a report released in Madison by Governor Warren P. Knowles. "Waterfront Renewal" was produced by the state's department of Resource Development with the assistance of a demonstration grant from the U.S. Department of Housing and Urban Development.

The report recommends a range of renewal treatments to apply to deteriorated waterfronts, ranging from simple clean-up to full scale clearance. One aim of this demonstration project was to develop "a format of a State program of advice and assistance to local communities in carrying out renewal of waterfront areas." The Department of Resource Development's state port advisory services were used and expanded to cover a wider range of problems associated with waterfront renewal. In addition to some assistance regarding development of specific waterfront parcels, waterfront case studies were conducted in several communities.. With the permission of the Resource Development Department we here reprint the suggestions for Manitowoc.

(The 68-page "Waterfront Renewal" report is illustrated and single copies are available from the Departmen of Resource Development in Madison, Wis. 53702.)

This city presented the greatest variety of waterfront problems. The business district is split by the Manitowoc River. Frequent bridge openings for car ferries create traffic congestion in the downtown area. A hairpin bend in the river hampers navigation in the upper part of the channel where a shipyard and a major dock are located. There are clearly noticeable areas of deterioration, especially on the north side of the river mouth. Deteriorated bulkheading and piling, such as shown on this page, in some parts of the harbor prevent reuses involving deep-draft navigation unless major replacement is undertaken. Fourth, water and air pollution discourage reuses such as residential.

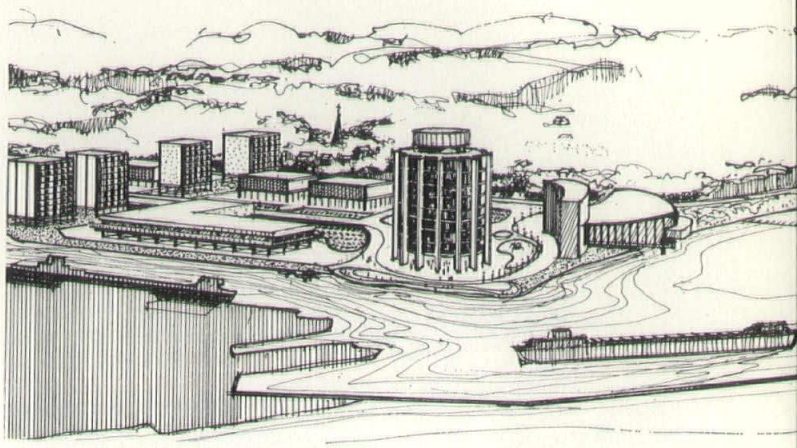
The area of the mouth of the Manitowoc River is a potential renewal area studied during the demonstration project. The area is a mixture of residential, commercial and industrial uses. Air pollution, allegedly caused by smoke from the ferries and coal dust blown from the piles shown in the picture, is quite high. Over the last decade, however, both the coal dock operator and ferry boat operators have managed to reduce the amount of air pollutants.

The study recommended that the two railroad car ferry docks be combined at the site near the mouth of the river. This would reduce considerably the number of bridge openings and would free the area formerly occupied by rail yards for possible use by water-oriented industries. In the process a sharp bend in the river could be straightened out, making access to the shipyard easier.

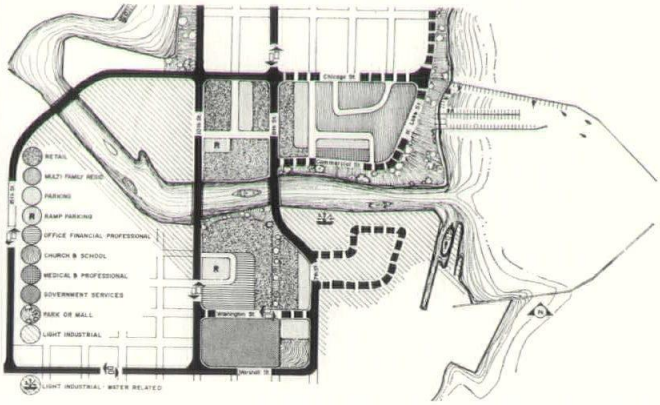
Three detailed alternative plans were prepared outlining possible solutions to the city's land use problems. Under the first alternative the central business district

would be concentrated on the north side of the river. It would be focused on a new governmental center built on the lakefront in the area proposed for urban renewal. Included in the plans for the north side are a park area and a residential area with apartment buildings overlooking the water. Industrial and cargo-handling uses would be concentrated on the south side.

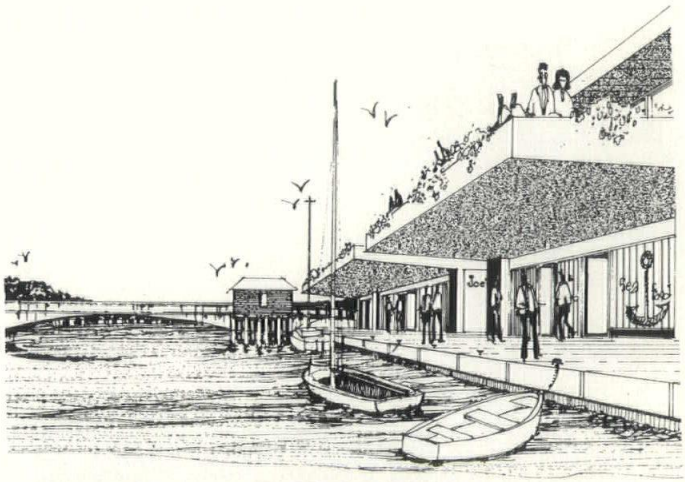
The second alternative plan would keep the present division of the central business district, but would make the river the focus of development. Many of the stores and offices would face the water with pedestrian walkways cantilevered over the water. Platforms would extend out from the shore, providing views of the area and even places for fishing. This alternative plan most fully exploits the esthetic assets of the river.



This preliminary drawing of some proposals for Manitowoc shows most of the buildings with the ground floor left open so pedestrians do not have their view of the water blocked.

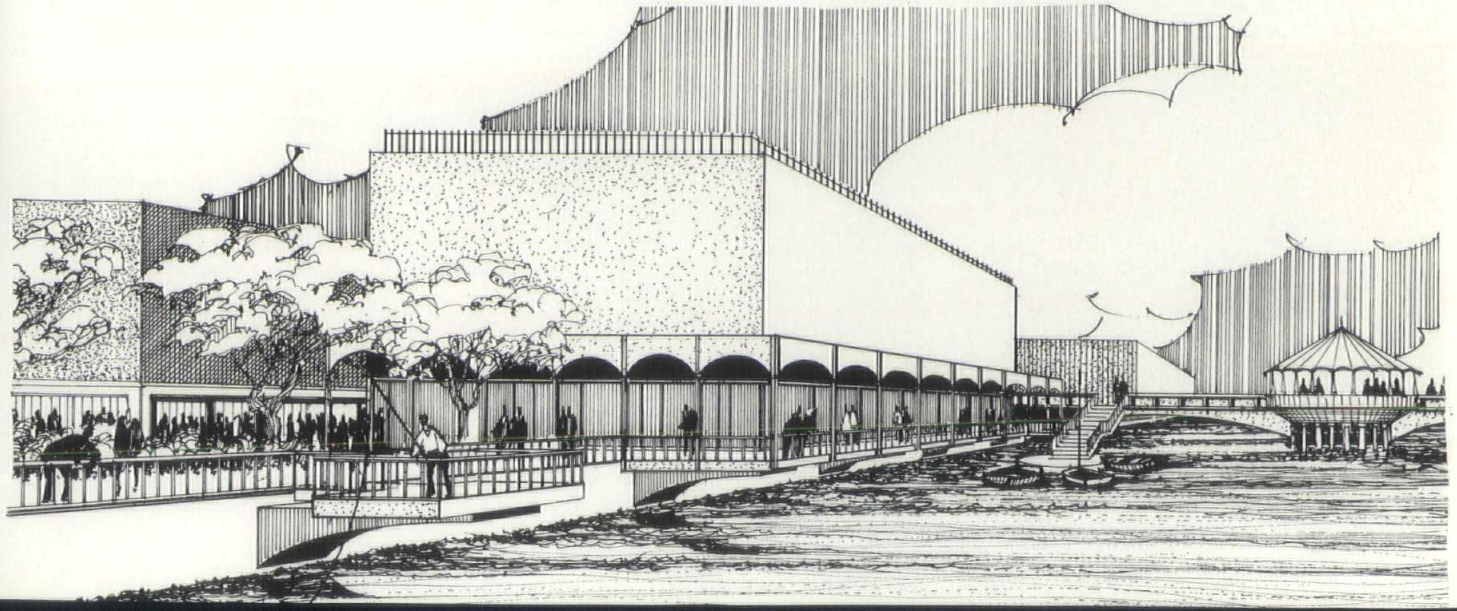


The third alternative plan, illustrated above combines features of the other proposals. The divided business district is retained, but with each side developed into a self-contained cluster. The north side renewal area (upper right quadrant) would be developed into a residential area with a waterfront park extending along both the river and the lake shore as a buffer between the industrial areas across the river. A suggested marina is included within the present breakwater.

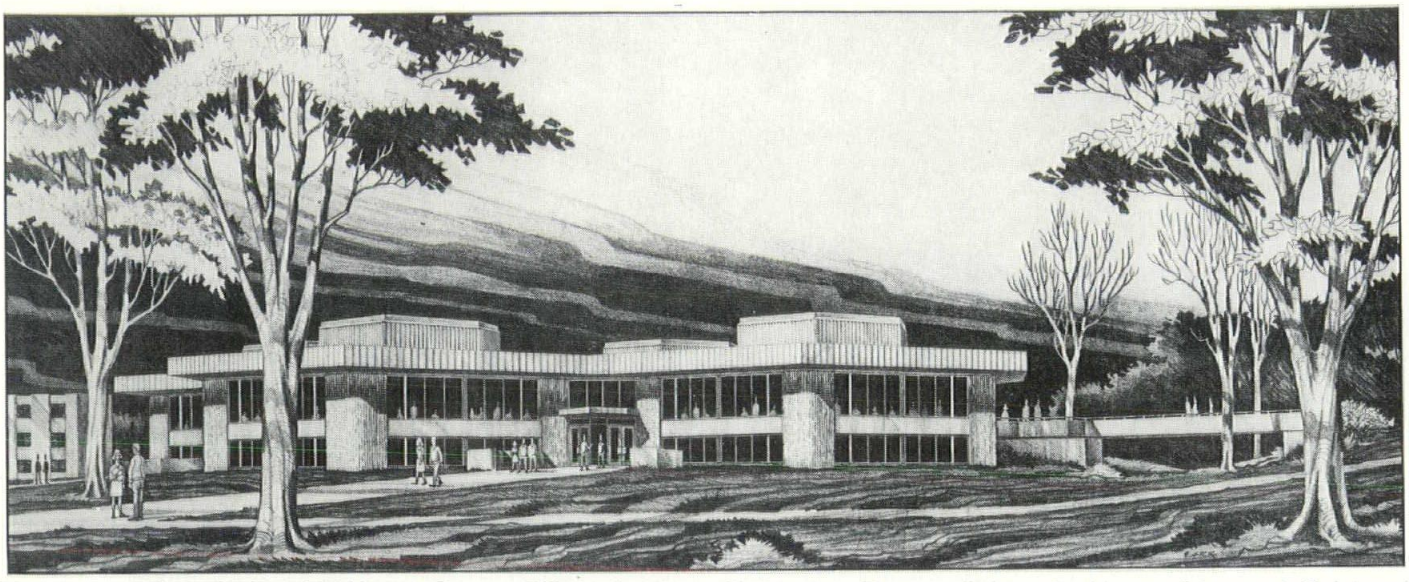


Proposal for shops fronting on the Manitowoc River.

Proposal for building a covered walkway next to the Manitowoc River and linked to a shopping mall.

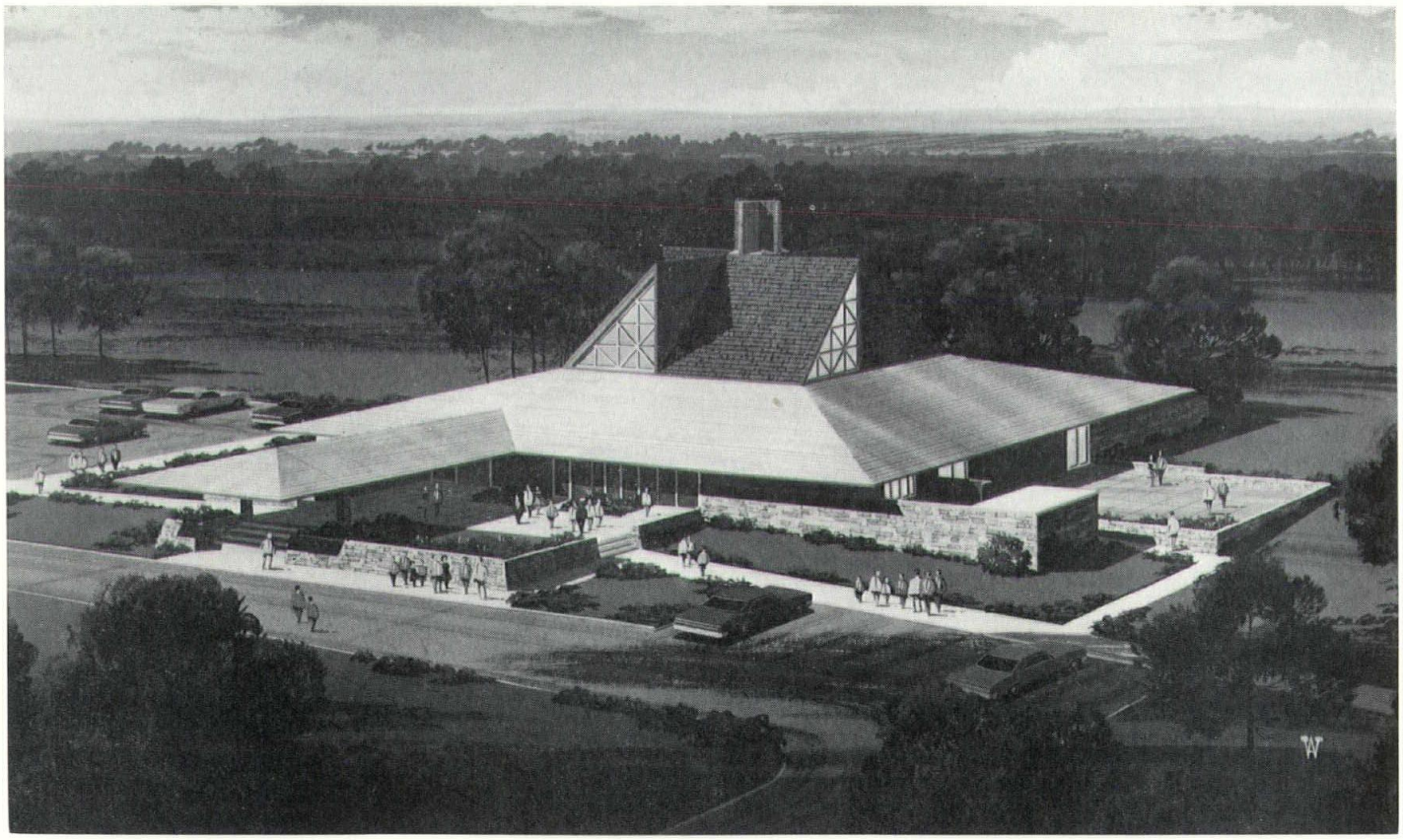


on the boards

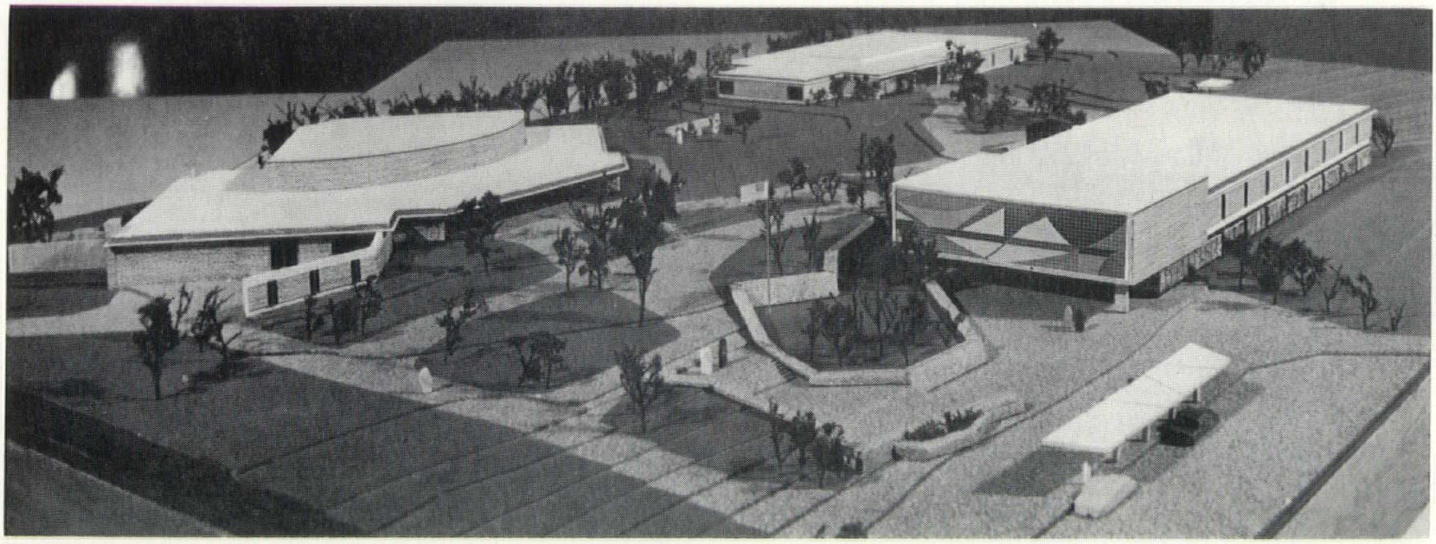


Elizabeth Pfiffner DeBot Residence Center, Wisconsin State University, Stevens Point. Architects, Irion and Reinke of Oshkosh. Completion scheduled for January, 1967.

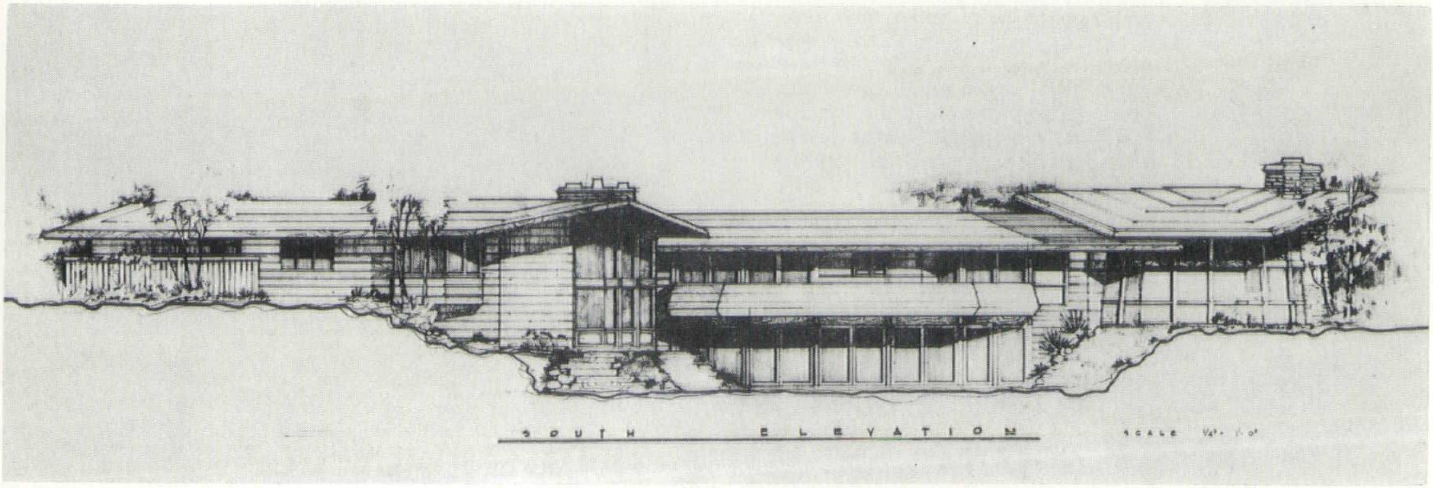
Hope Congregational Church, Sturgeon Bay, Richard P. Linde, AIA, Architect of Sheboygan.



Projects on the Boards of Architects Lawrence E. Bray and Associates of Sheboygan.



University of Wisconsin, West Bend.



Verhulst Residence, Sheboygan, Wisconsin.

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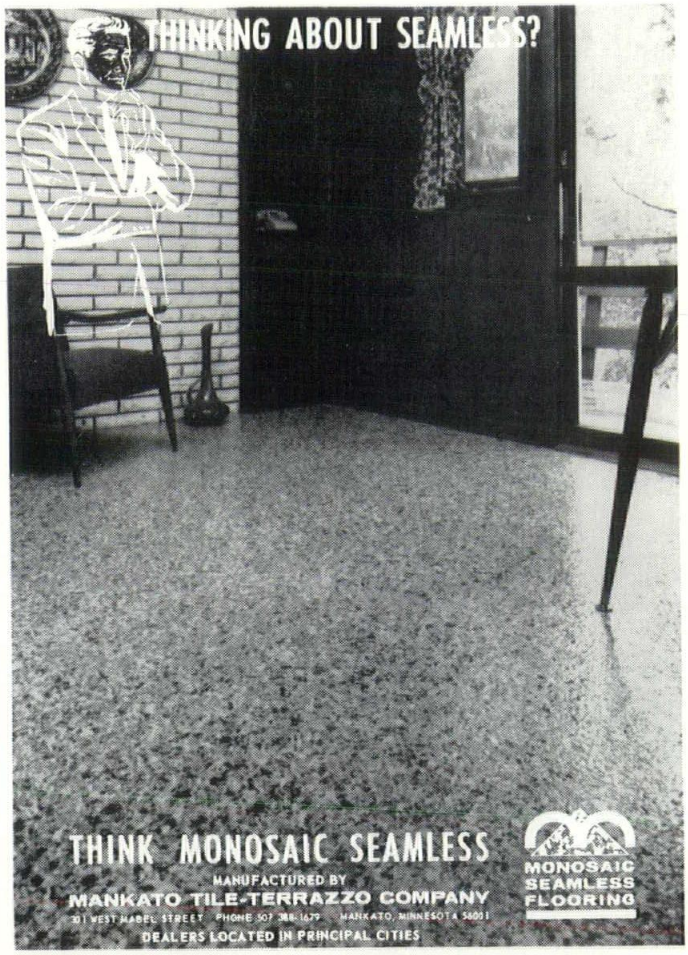

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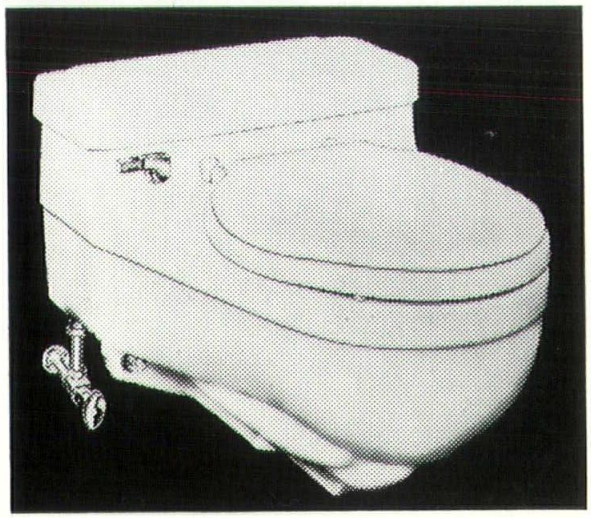

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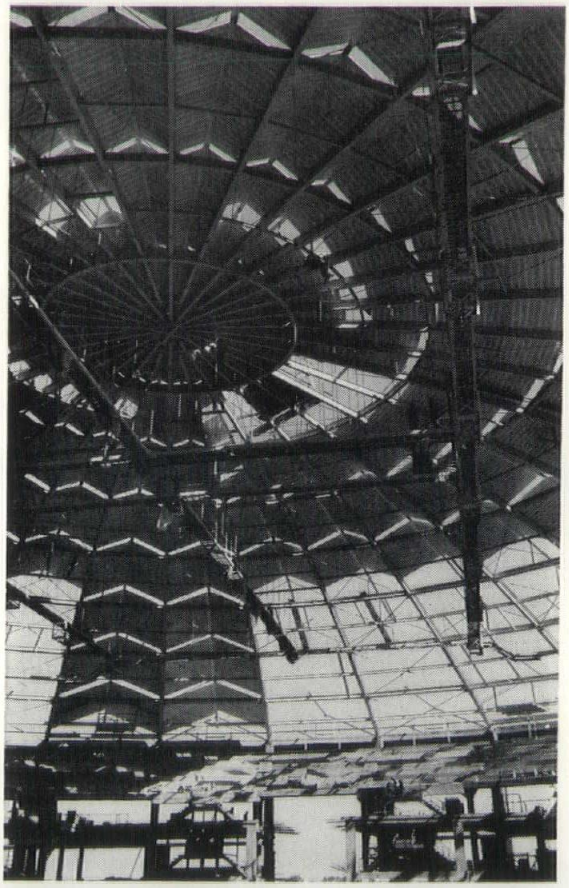

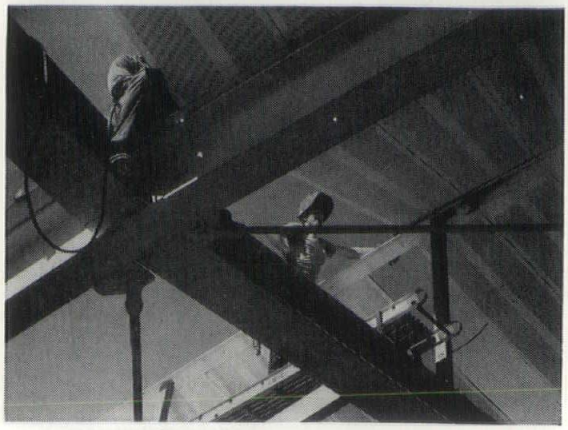

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Wisconsin Architects Foundation is to receive a unique and continuing contribution resulting from royalties on the sale of a special concrete block designed and copyrighted by a Milwaukee architect. The special arrangement has been made with Best Block Company of Milwaukee by the donor, *The Shepherd Associates. Mr. John Barron Shepherd, AIA,* informed the foundation that the *joint decision* to turn over the royalties was in appreciation for the tuition aid he was granted while a student at the University of Notre Dame. The record shows that Mr. Shepherd was among the first students to receive consideration by the Foundation back in 1954.

The Best Block Company itself, through the particular interest of the President, Paul F. Bronson, in the Foundation's efforts to establish a School of Architecture, is the Foundation's most generous contributor. For three consecutive years the Company has given $1,000. Each time the money was invested by the Foundation for future use when it can more directly benefit architectural education in Wisconsin.

Another firm involved in promoting architectural education is Rollin B. Child, Inc., of Minneapolis. For many years the Child foundation has contributed scholarship aid in architecture at the University of Minnesota. Having been made aware of the Foundation's tuition grants to Wisconsin students attending that University, and other architectural schools throughout the country and the efforts to bring architectural education to Wisconsin, Mr. Child promised a couple of years ago that circumstances allowing he would help the Foundation. That promise came true this year with a first annual contribution of $250.

An annual contribution became practically automatic in 1962 when the Foundation received its first check of $150 from Osborne, Incorporated, Madison, with like amount each year since then. This benefactor, as do others, receives an annual letter from the Foundation informing of progress.

The Foundation has come to depend in the same manner on the Milwaukee Area Bureau of Lathing and Plastering, Inc., for their annual contribution of $100 with continued gratitude.

Western Builder Publishing Company can always be counted upon to give publicity at the end of the year to the Foundation's worthy program and its need for funds, and further help with an annual contribution of $50.

The Producers' Council has developed into a group of staunch friends. During the past three years certain of their activities have afforded fund-raising for the Foundation.

Another good friend is Halquist Lannon Stone Company. On the occasion of a dinner-meeting for S.E. Section architects, the amount charged each individual (to avoid

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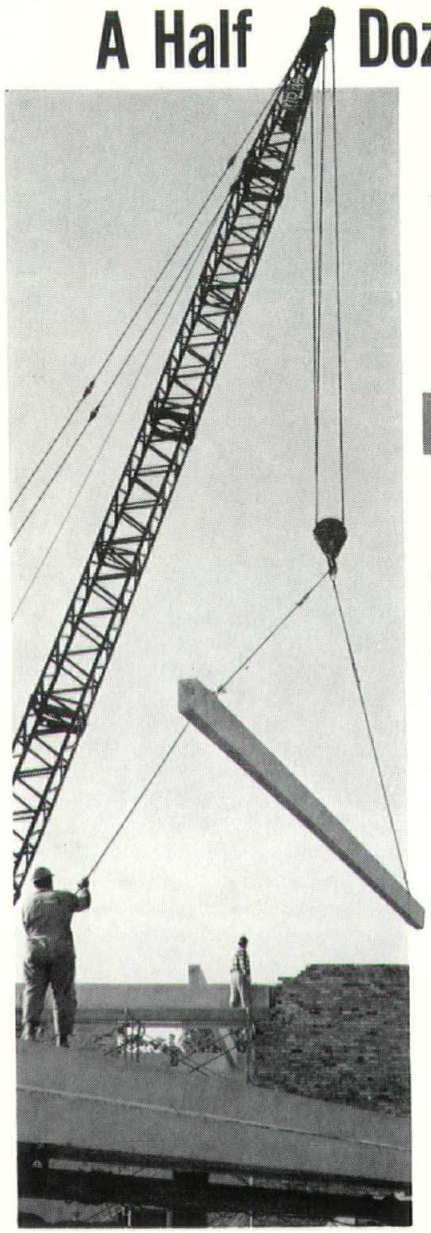

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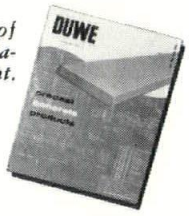

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producers' council

The Wisconsin Chapter of The Producers' Council had a big success with its Second Annual Producers' Council Picnic in August.

September is going to be another big month for this Chapter. The Annual Producers' Council Golf Outing, which is one of the major and popular activities directed to Architectural and Engineering people is our big feature this month. We all had a tremendous time last year. The Food, Golf and Prizes were all equally terrific and I have been informed by Andy Randazzo of Inland Steel that with the able assistance of Dean Harryman and Ward Lambert the Producers' Council is going to have a bigger and better "swinging" time than ever before. Here is the date and place; put it on your calendar — September 20, Lake LaBelle Country Club, Oconomowoc, Wis.

Pete Alexander and Harry Wittwer along with Murray Kinnich, AIA Liaison man, are working harder than Beavers to set up the Building Seminar scheduled for the first week of February, 1967.

Herbert C. Rother
President, Wisconsin Chapter
Producers' Council

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the "for free") is turned over to the Foundation.

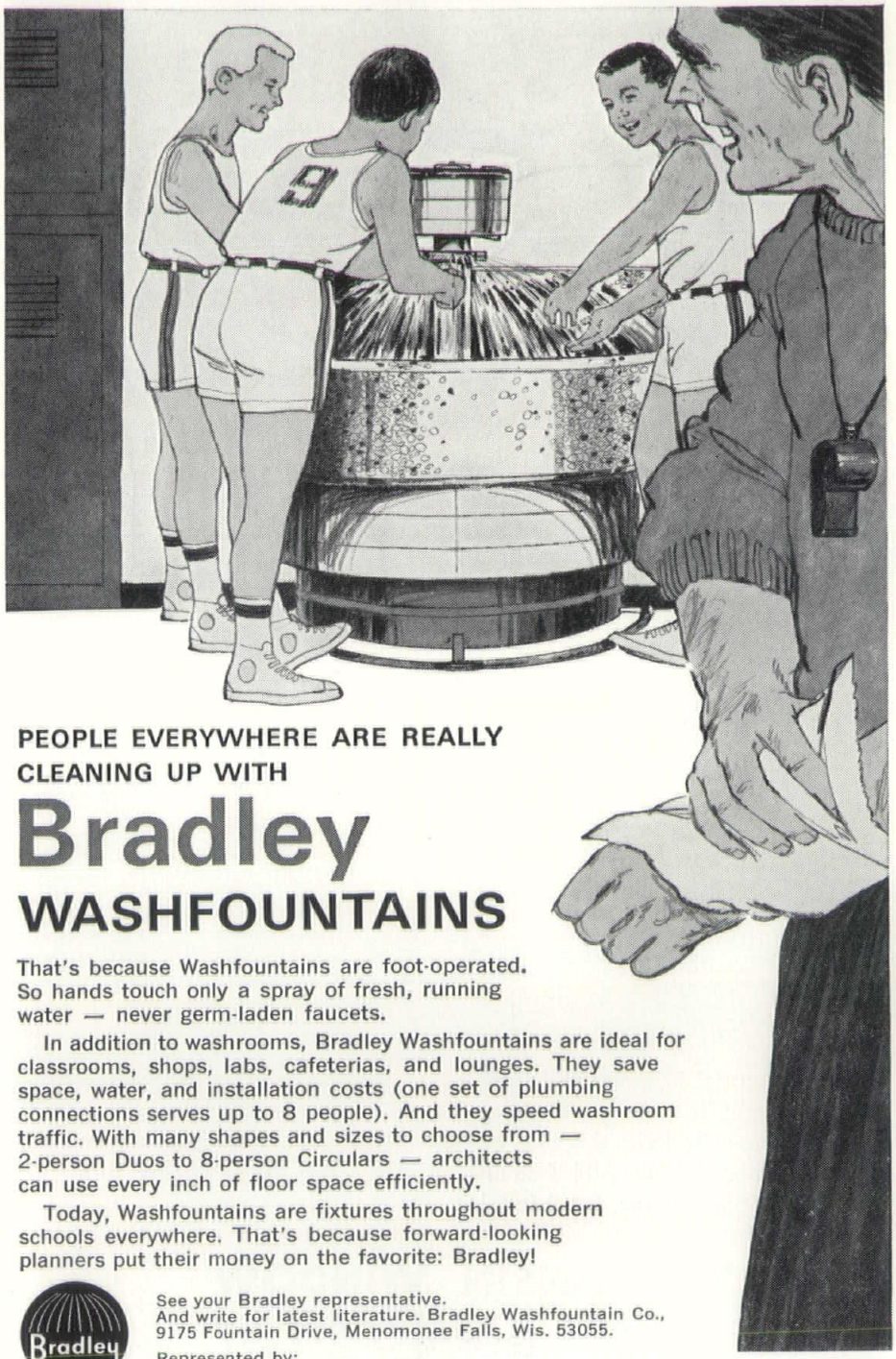
Other organizations from whom the Foundation has received periodic generous contributions are: D. G. Beyer, Inc., W. H. Pipkorn, E. G. Artz, Inc., Sheet Metal Workers International Union, Sheet Metal Workers Industry Fund, Woerfel Corp., Super Sky Products, Inc., VerHalen, Inc., Lofte & Fredericksen, Inc., Bradley Washfountain Company, and Concrete Research, Inc.

At least twenty other organizations have contributed once in recent years, and it is hoped that their interest can be continued in the future. Every year the list of contributors grows.

More intimately concerned with fund-raising for the Foundation is, of course, the Women's Architectural League. Over a period of years, Madison WAL has contributed a total of $2,175. Milwaukee WAL has totalled $4,000. One-half of the latter amount has been invested for future architectural scholarships in Wisconsin.

The Foundation will continue to pursue the policy of announcing contributions received on this monthly page, with the exception, of course, of memorial gifts. Won't YOU give the Foundation the satisfaction of announcing YOUR contribution?

What future direction the Foundation will take in its program of aid to architectural education will depend on the development of a School of Architecture at the University of Wisconsin-Milwaukee, approved by the Regents of the University, and facing approval by the Coordinating Committee on Education for presentation to the Wisconsin Legislature. EVERYBODY: HELP!



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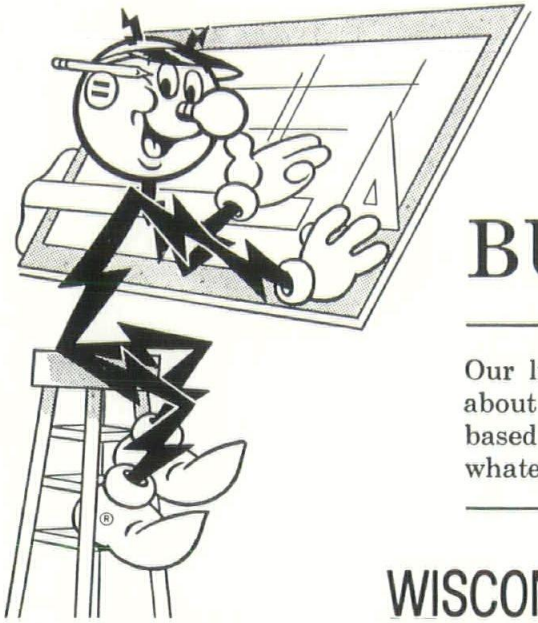

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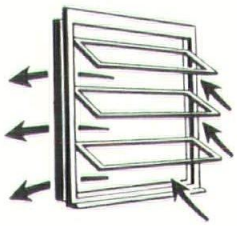

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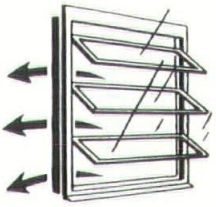

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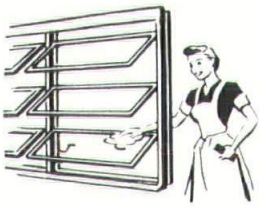

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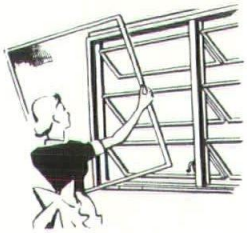

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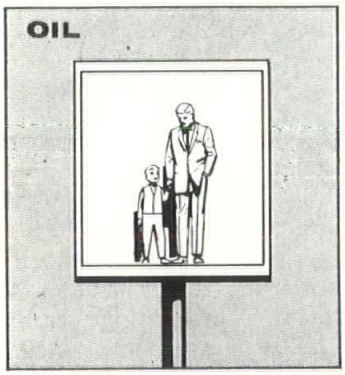

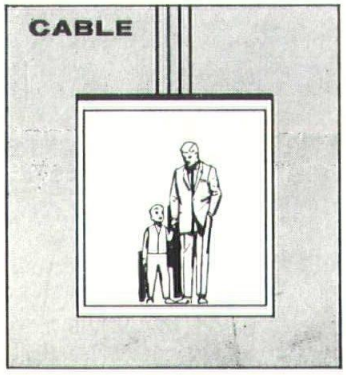

"Waiting for an elevator" is one of the most costly phrases in the English language. It costs employers productive time of their employees. It costs businessmen losses when clients become annoyed and take their trade elsewhere. It costs building owners loss of rentals when dissatisfied tenants move out.

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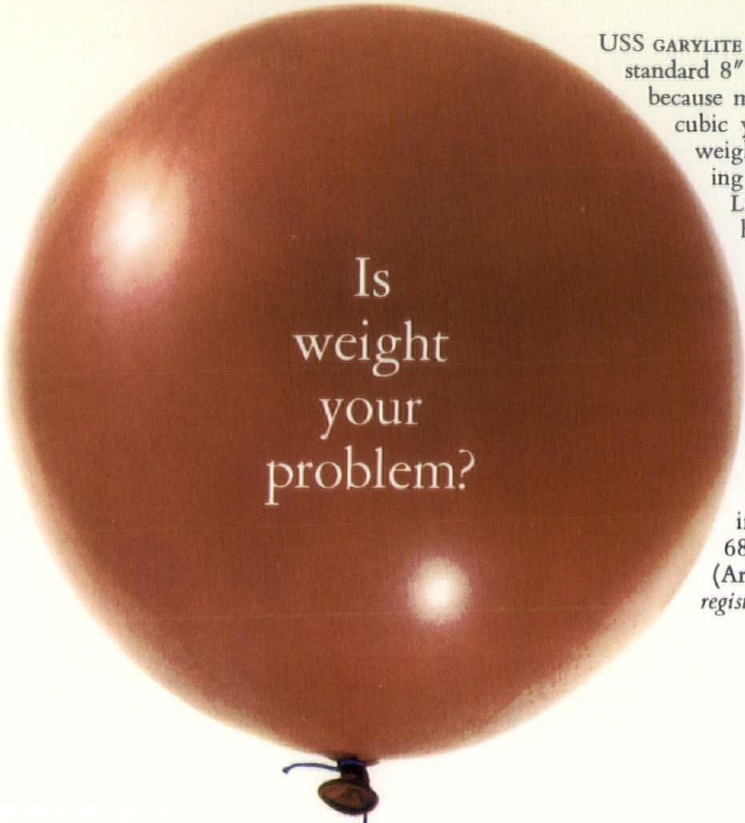

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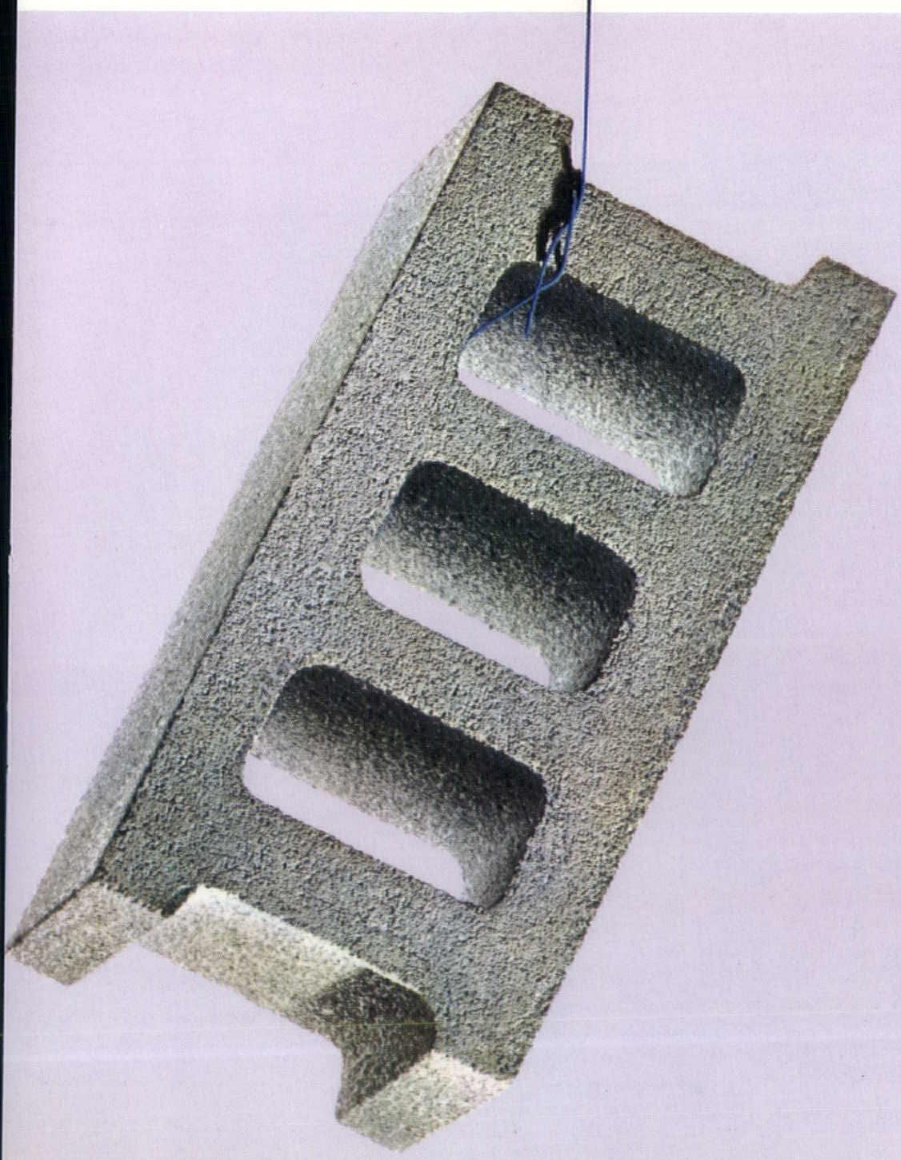


automation · instrument for efficiency

Dr. G. Neil Harper

Continued from August issue.

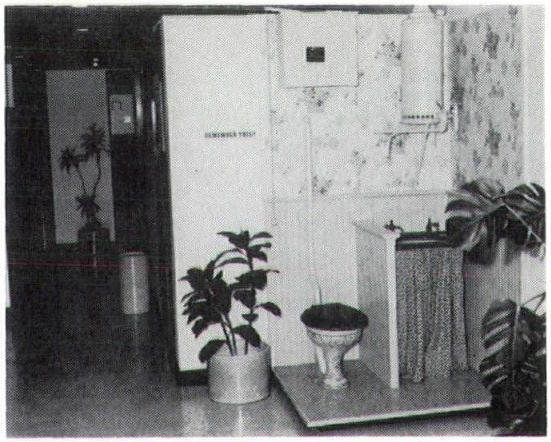
With this now, I'd like to pass to a very brief discussion of how the Wisconsin architect, in his own office, can gain access to the computer. I think there are three or four ways that you can do this. Probably the best is to rent time locally. Time on machines goes from anywhere from $20.00 an hour up to $600 to $700 an hour depending on the machine that you're using, but if you can find a firm locally, say in Madison or in Milwaukee, or wherever it is, as a rule we would be happy to rent time to you because computers are becoming so fast nowadays that very few firms, particularly professionally-oriented firms, are able to keep these machines busy all the time. So, if you can link up with a neighbor of some sort in leasing a machine, or just renting some time from him to run through your telephone directory, your personnel list, solve some of your design programs, I think this would be the best way.

There are also data centers available to you. There's a large data center, I know, in Minneapolis, there's one in Chicago, there are several in Chicago — any of these data centers are more than anxious to rent time to the small user and help him in his problems. There's always the mail — if you have large-scale problems that you are not in a particular hurry for but can wait several days for large volume answers, you can mail this information to Madison where the University may be able to do something for you, to Chicago, St. Louis, New York, all over the country.

There's also the possibility of the typewriter terminals Time sharing, I think another attempt on the part of the computer industry to bring computers within reach of the small offices. This example you see before you is done on time sharing. You can install one of these time-sharing devices in your office from anywhere from $200 to $500 a month which is anywhere from one-third to one-half as much as you would pay for a computer itself if you kept it in your office. So for that kind of money, you can have access to a computer. There are some limitations implied particularly on the volume of input and output which you can get back. But, if you're willing to accept those limitations with the appropriate benefits which you get out of it, mainly immediate access to the computer at certain times of the day, time-sharing is a real possibility and now it's commercially available on the market by at least two manufacturers.

And, lastly, for those firms which are very experimental in nature, have an aggressive, forward look about them, they're expecting to grow and are willing to risk the investment of a modest amount of money, there's always a possibility of placing a machine in your own office. A small-sized machine, a small or medium-sized machine can go anywhere from $500 to $2,500 a month, a $1,000 a month. Something like that is reasonable. You can figure something like one man, man and a half, to run it. So you say can I get from this combination man-machine the equivalent of three men's work. If, on the analysis of your office, you think you can, I think the time has begun for you to begin looking at computer techniques. More likely than not, I think, the correct way for a small office to begin is in renting time locally from someone who has a computer, develop a little bit of sophistication, cut your eye teeth, see what you can do with it, you will not have wasted a large amount of money, and then when you begin to see that you're using more and more time and you accrue larger and larger computer bills, but at the same time accruing all the benefits that you get from this.

Engineers, particularly in the space industry and structural industries, have for ten years taken advantage of these things and have exploited them, partly because the nature of their work is so laborious, some of it is. Therefore, they look for natural ways to solve those problems. Architecture, being a more creative profession — perhaps it has a different problem to solve. So I hold high hope that the architect will solve this because of the nature of the man. The architect in my view, anyhow, is a very creative, imaginative, responsive kind of person, so it is from the architects I look for the most exciting and imaginative solutions from computers to come.



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basics in lighting

"From sunlight to artificial light." This is the evolution in light as we see it today, as we saw it yesterday and as was seen fifty years ago. This is an experience of great magnitude and of multiple effects. Is this transition good or bad? — a question possessing many answers and much controversy, which has concerned architects and lighting engineers for many years.

A vast number of designs have been developed to control sunlight for interior lighting use. Many of these designs resulted in a lighting system which was both beneficial to the inhabitants of the illuminated space and instrumental in accenting the architectural excellence of the design. Where natural light has failed to produce an adequate space illumination, artificial light has been employed. This type of system is by far the most prevalent today, and has vast capabilities for future development.

The fundamental design of both natural and artificial lighting systems is basically the same. This design requires an understanding of "contrast" and "brightness control" coordinated with recommended illumination levels. Because of the increase in recommended illumination levels, contrast and brightness control have become two very important design basics. Without serious consideration for these basics, rising foot candle levels can produce an intolerable lighting installation. Let us take a brief look at these two fundamentals and see how they should be considered when designing an artificial or natural lighting system.

"Contrast" is a fundamental which, when used wrongfully, can destroy the design and visibility of an architectural space. For our purpose, contrast is defined as the difference in luminance between the object of interest and its background. Every lighting system requires contrast to be effective. This effectiveness is produced when the ratio of maximum to minimum brightness falls within the recommended limits for good visibility. These ratios vary depending upon the type of task being performed in a specific installation.

"Brightness control" is the second basic fundamental which should be considered when designing any type of lighting system. Brightness is defined in lumens per square foot or in footlamberts, and exists in every lighted space.

The correspondence of contrast and brightness control exists as one entity but should be considered separately. This separation is essential since differences in brightness produce contrast with the end result being a visually comfortable space. To maintain this comfort, brightness control is essential, and when not considered properly, deterioration of visibility occurs.

Because of the increasing demand for higher foot candle levels in all lighting applications, the control of brightness and the design of correct contrast ratios have become increasingly difficult to attain. At the same time, a space with high foot candle levels can maintain a larger value of average brightness than a lesser illuminated area but with the difficulty of attaining the desired contrast.

Consider the first step in the evolution of lighting — sunlight. For exterior lighting the average foot candle values produced by the sun range from 1000 FC on an overcast day to 5000 FC on a clear day. This high intensity of illumination results in difficulty with contrast design. This design can only be produced with three dimensional shadowing and correct color selection of the object being lighted and its background.

Brightness of the sun becomes an important consideration when selecting material finishes and colors for the lighted object. For example, a glossy finish produces reflected glare from the sun on a clear day but is eliminated on an overcast day since the light source, the sun, is in most part hidden. This reflected glare eliminates all visual comfort because the eye adjusts to the higher brightness of the reflected glare and not the overall brightness of the visual field. This glare is eliminated by using matte finish and light colored materials. Correct contrast is attained by providing a background of darker color than the object being viewed. For visual comfort, a contrast ratio of 2:1 should be maintained as a minimum design criteria.

For interior use of sun lighting, the problems of correct design become somewhat more complex. The foremost problem is one of decreasing the natural light intensity to a level which is compatible with the artificial lighting system used. This problem has partially been solved with the use of low transmittance window glass and skylights. Under the condition of partial cloudiness, this solution is wholly satisfactory, but on a clear day the brightness of the window and skylight will attain values up to 3000 FL. This condition is impossible to correct with conventional lighting systems since a general background level of 1000 FC would be desired. The solution to this problem is to make all large area surfaces light in color with matte finish and maintain a general illumination level of 300 FC or to eliminate the natural lighting effect. When the general lighting system is extended to 300 FC loss of contrast and brightness occur.

When considering a totally artificial lighting system, the same problems created by the natural lighting system exist but are not as severe. Many interior artificial lighting installations maintain an illumination level of less than 200 foot candles. Again, with this light level the selection of architectural colors and finish is important to the visibility comfort of the space. Control of contrast and brightness is now easier to attain because of lesser foot candles.

Brightness control is achieved by concealing the light source from the visual field and by using low-brightness, light diffusing media. Although these recommendations may sound simple, their application in an architectural space is most difficult when trying to design an aesthetic and technically sufficient lighting system.

"Contrast" and "brightness control" do by no means constitute the only problems prevalent in most lighting systems, but they do warrant serious consideration from both architects and lighting designers. Examine a lighting installation which you think to be insufficient. Most likely, these two basic fundamentals have been violated.

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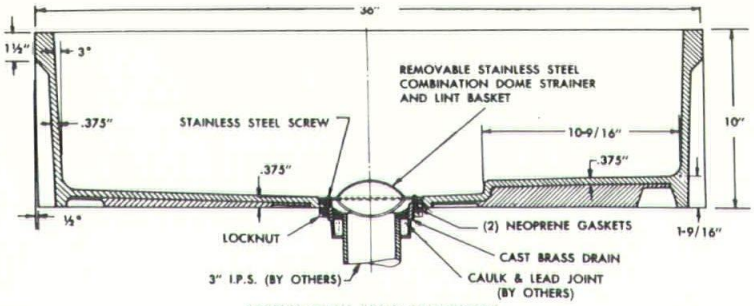
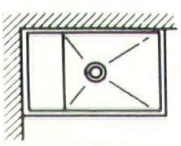
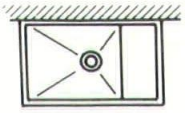


SECTION THRU DRAIN CONNECTION



LEFT ROOM CORNERS



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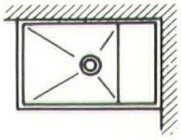
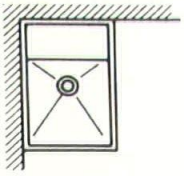


RIGHT ROOM CORNERS



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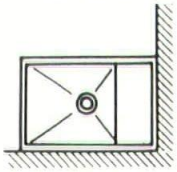

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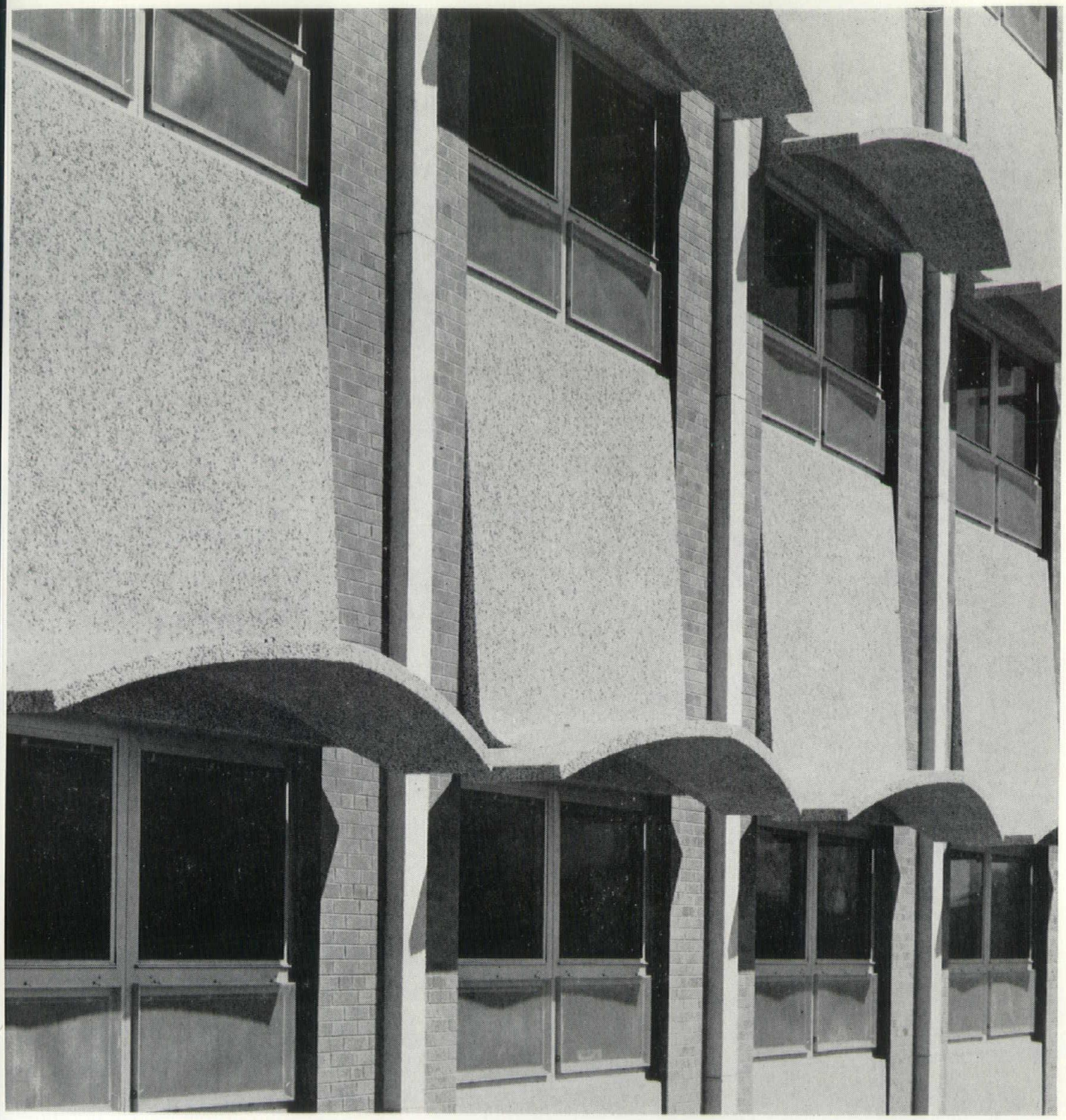

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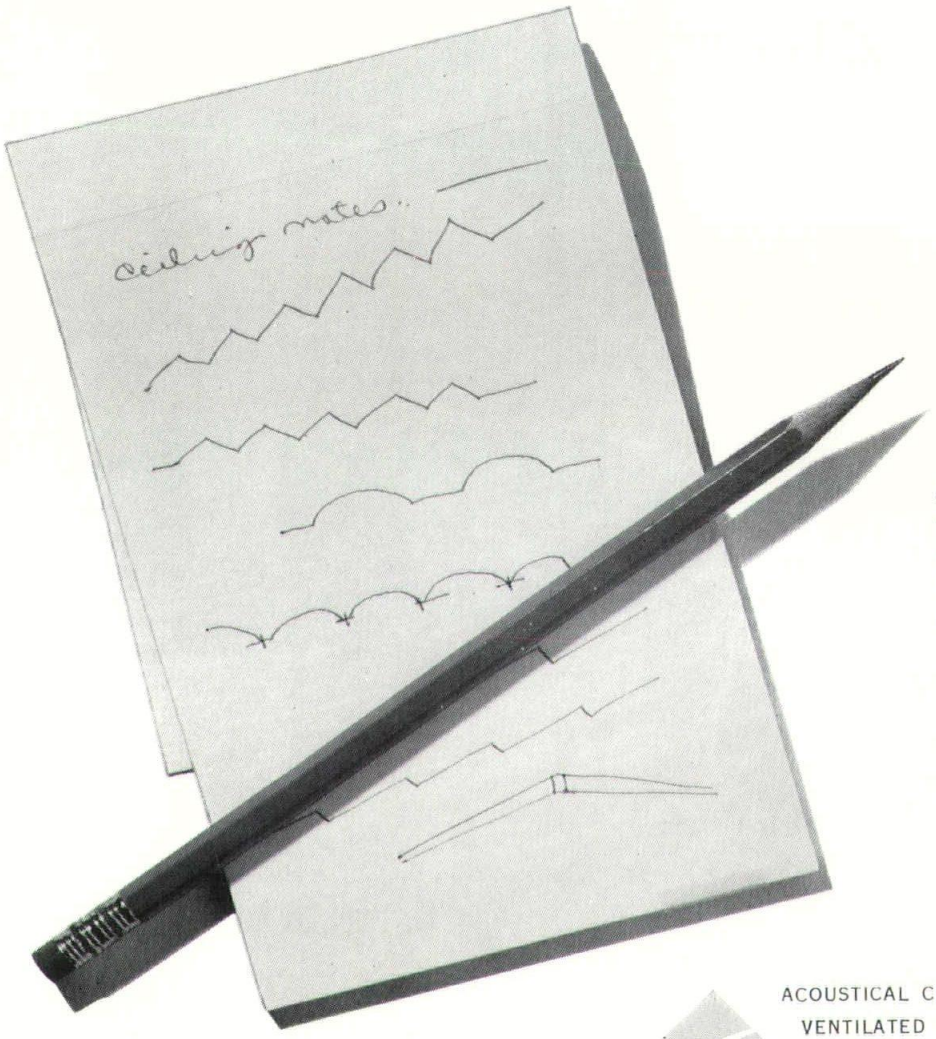

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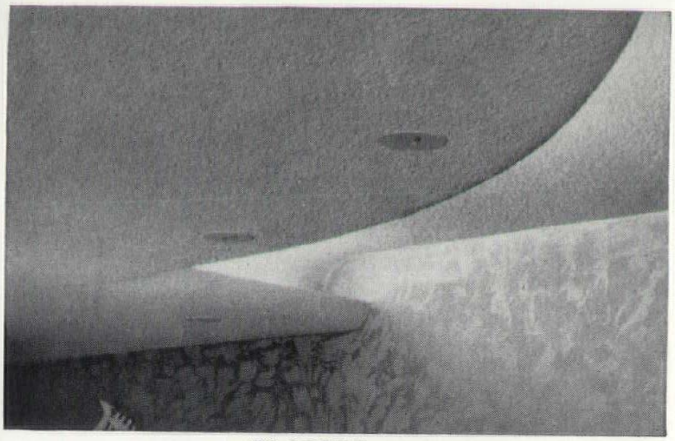

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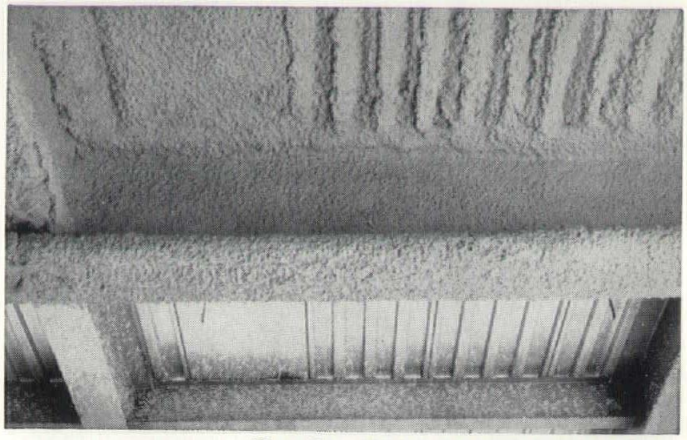

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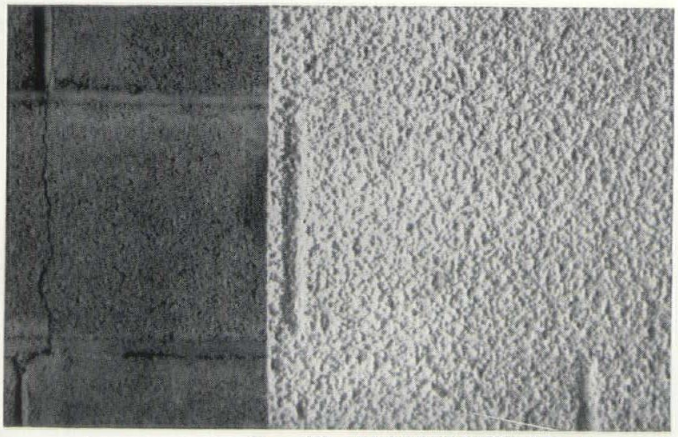

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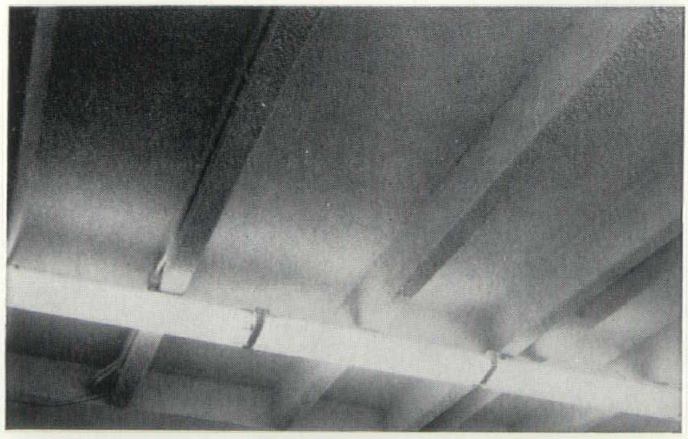

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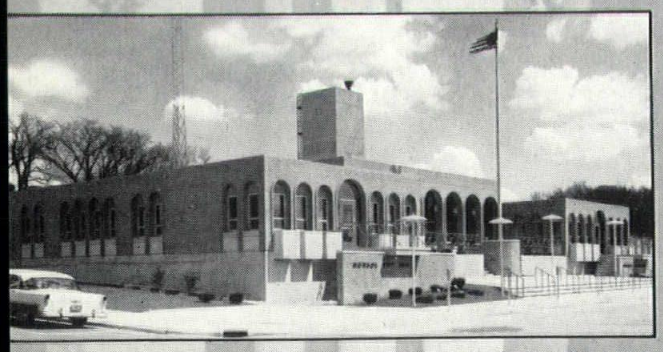

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Are there any areas where you feel problems exist? Are there any suggestions you have on how we may best work together? We'd appreciate hearing from you! Write Mr. Richard Brotherhood, executive director, or phone 933-7573.

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Photograph taken in the Zonta Manor Apartments, Milwaukee — Willis and Lillian Leenhouts, architects.

"...And you'll like the quiet and privacy this apartment gives you. These are all plaster walls!"

PLASTER — A WISE INVESTMENT

Smart builders and investors recognize the value of plaster walls in new apartment buildings. After all, once you build 'em, they must be rented. And what a selling tool plaster walls become for your client when it's time to rent.

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